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LIS

MATERIAL REQUIREMENTS PLANNING (MRP)



**MRP QUEUE, ADDITIONAL DEMAND, MRP DATA,
MRP PARAMETERS**

USER GUIDE

Revised : April 2, 1999

PREFACE

This User Guide is intended for the use of Federal Aviation Administration (FAA) personnel who have authorized access to the Logistics and Inventory System (LIS).

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1.0 OVERVIEW

1.1 GENERAL DESCRIPTION

The Material Requirements Planning (MRP) System will be a function in the Inventory Management subsystem of the Logistics and Inventory System (LIS). It will replace and expand processes that were previously running under the National Supply (NS) System. Some of the functions covered under the MRP "umbrella" are:

- Requirements
- Forecast Demand
- Budget

These functions will be covered in this User Guide, while other functions are covered in separate User Guides.

The new processes for the Requirements, Forecast Demand, and Budget functions will replace existing processes that do not provide sufficient flexibility and data to meet the challenges of the new equipments being brought into the National Airspace System (NAS). Management and reporting by system designator was very difficult. There was no capability to mechanically record and track projected future demand, either for requirements or budget purposes. Also, the existing Budget process was part of a single program that intermingled Budget, Excess, and Stratification.

Making modifications to any one of the three was a very delicate and involved endeavor, and there was a great risk of inadvertently impacting the other processes in a negative way.

In addition, certain revisions and additions were needed to address deficiencies identified during past Office of Inspector General (OIG) audits and other management reviews, plus incorporate new policy guidance in program office directives.

Because some of the terms used within the MRP processes are new, a Glossary is included with this user guide as **Appendix A**, (Pg. 348).

1.2 BENEFITS

Revisions to the Requirements function will provide:

- Broad range of data available for viewing, including a view of three future years (projected demand, requirements, receipts, etc.).
- Review of FEDSTRIP / MILSTRIP Requirement records before submission to the supply source.
- Additional demand records considered in requirement computations.
- Element available for capturing "number of impressions" per unit of issue for forms (usable by requirements and budget functions).
- Online recomputation capability.
- Mechanical identification of borrow, loan, or other records that may impact requirements decisions.
- Additional Management Code added to allow budget consideration but restrict requirements generation.

- Capability to restrict requirements by Application-To Code.

Revisions to the Forecast Demand function will broaden the system capabilities as follows:

- Multiple forecasting methods available, with three methods running at all times.
- Mechanical tracking of accuracy of three forecasting methods and reporting of consistent errors.
- Notification of large increases or decreases in demand.
- Capability to add "additional demand" records to track projected future demand.

The new Budget function will be a stand-alone process. It will take advantage of other new processes that improve the mechanical updates for certain elements utilized in budget computations (like lead-time and demand). Other benefits include:

- Broad range of reports by multiple criteria: Program, Application-To / System, etc.
- Separate identification of outstanding requirements (advance due-in, advance commercial repair).
- Consideration for new Management Code that will allow budget computation but restrict requirements generation.
- Budget projections by month for the current fiscal year, with yearly totals for the following two years.

1.3 SECURITY LEVELS FOR MRP

The Material Requirements Planning (MRP) System requires multiple security levels to maintain the integrity of diverse processing requirements and to provide appropriate access to needed information. Individual security levels specified below have been fashioned to compliment criteria identified for associated user groups. Some of the levels correspond to those in the main Inventory Management application, but fewer levels are required for MRP.

Access for individual users is limited to those functions authorized by the assigned security levels. Unauthorized users attempting functions not allowed in designated security levels will receive the error message, **INVALID OPTION FOR YOUR SECURITY LEVEL**. This message will display in the upper left corner of the screen.

Valid security levels are as follows:

LEVEL 3 - AML-600 ITEM MANAGERS AND EQUIPMENT SPECIALISTS

Update capability to most MRP processes, including MRP Queue and Additional Demand.

Inquiry capability into the MRP Data (Table), into MRP's version of Demand History Inquiry (table and graphics forms), and into the Forecast and Systems Parameters functions. Update capability for the "Number of Impressions" element on any item's Forecast Parameters record, but no other access to update any other Forecast or System Parameters values.

LEVEL 4 - AML-600 MANAGEMENT

Update capability to most MRP processes, including MRP Queue and Additional Demand. Inquiry capability into the MRP Data (Table), into MRP's version of Demand History Inquiry (table and graphics forms), and into the Forecast and Systems Parameters functions. Update capability for the "Number of Impressions" element on any item's Forecast Parameters record, but no other access to update any other Forecast or System Parameters values.

LEVEL 5 - AML-600 CONTROL GROUP (AML-610)

Update capability to most MRP processes, including MRP Queue and Additional Demand. Inquiry capability into the MRP Data (Table), into MRP's version of Demand History Inquiry (table and graphics forms), and into the Forecast and Systems Parameters functions. Update capability for the "Number of Impressions" element on any item's Forecast Parameters record.

Capability to route any MRP Queue records that were not identified to a valid Inventory Manager Number or organizational identifier.

After system implementation and familiarization, this security level will be provided access to the update capability for the Forecast and System Parameters functions and to the "App-To" restriction flag for requirements (also on the Parameters menu). Able to see a broader view of different organizations than Security Level 3 or 4.

LEVEL Z - AML 110 / 120 LIS DEVELOPMENT PERSONNEL

Update capability to all MRP processes, including MRP Queue and Additional Demand.

Inquiry capability into the MRP Data (Table), into MRP's version of Demand History Inquiry (table and graphics forms), and into the Forecast and Systems Parameters functions. Capability to route any MRP Queue records that were not identified to a valid Inventory Manager Number or organizational identifier. Update capability for the Forecast and System Parameters functions, including "Number of Impressions" and the "App-To" restriction flag for requirements (also on the Parameters menu). Able to see across all organizational lines.

1.4 KEYBOARD CONVENTIONS IN LIS USER'S GUIDES

1.4.1 STANDARD NOTATION FOR INPUT FROM THE KEYBOARD.

Throughout the LIS USER GUIDE, the following conventions will be used consistently to indicate user keyboard entry

EXAMPLE:

When the user sees	It represents...	Example...
[] (square brackets)	a specified key that should be pressed.	[ENTER]
< > (greater than & less than)	the data to be input	<99> <01>
ALL CAPITAL LETTERS	a data or field name	TRANSACTION CODE CONTROL NUMBER
BOLD CAPS	information from the actual screen	<99> - TO CANCEL OR RETURN TO LIS MAIN MENU
Press	instructions to depress a key or Keys	Press [ENTER]
Input	instructions to type the specified input	input option NUMBER <2>
NOTE:	important information	NOTE: Set printer for 132 column output
[keyname]-[keyname]	combinations of keys to press together	Hold the first key down, press the SECOND

1.4.2 RULES FOR DATA INPUT WITHIN LIS

Data entry screens are not case sensitive, that is, either upper or lower alpha characters may be used to input data into a character field. DO NOT use alpha characters in numeric fields, such as alpha "O" in place of numeric "0" or lower case "L" in place of numeric "1".

If a field is completely filled when the user inputs data, the cursor will automatically move to the next field. If the field is not completely filled, the user will be required to press the **[TAB]** key. Pressing **[TAB]** will move the cursor from field to field, left to right, and top to bottom, through the display screen. Pressing **[SHIFT]-[TAB]** will move the cursor from right to left and bottom to top through the display screen.

When the cursor is in the last field on the screen and **[TAB]** is pressed, the cursor will "wrap" into the first field on the screen. When the user has finished working with the current display screen and is ready to process the input or option/command selected, press the **[ENTER]** key. The **[ENTER]** is sometimes labeled **[RETURN]**, **[CTRL]**, etc.

The **[HOME]** key will return the cursor to the first field on the screen display. (THIS FEATURE IS NOT AVAILABLE TO DIAL-UP USERS.)

The **[DELETE]** key removes the character or number immediately under the cursor.

1.4.3 RESETTING THE KEYBOARD

There are several ways a keyboard may "lock up" on the user.

- (a) Data input outside the data field. This is usually caused by using the cursor keys to move the cursor instead of the **[TAB]** key.
- (b) Alpha characters input to a numeric field.
- (c) Trying to input data when the system is in a "wait" state.

Depending on the method of access into LIS, users can reset the keyboard by pressing **[F10]** (if using a 3COM network), **[+]** on the numeric keypad (if using a MICOM controller), or the left **[CTRL]** key (if using an IBM 3270 controller). Dial-up users can reset the keyboard by pressing the **[CTRL]** key and **[R]** key at the same time.

1.5 USER IDS AND PASSWORDS

All users logging on to LIS must input their LIS USER ID and PASSWORD at the **FAA / DOT COM-plete SYSTEM LOGON** screen. If the user does not have a LIS USER ID and PASSWORD, contact the LIS Security Representative (AML-120), for information and Computer Data Access Request form (FAA Form 1370-24).

The LIS USER ID is a six position code in the format "LGRRII", where the "LG" stands for Logistics, the "RR" positions are the user's Region or Center, and the last two positions are the user's initials.

If the letters for the user's initials have already been used by another user, the user's ID code may have other letters or numbers in the last two positions.

User IDs and Passwords are assigned by the Office of Information Services (previously the Data Services Division [AAC-300]), AMI-1, at the Aeronautical Center in Oklahoma City, OK. ID and Password notification is by letter from AMI-1 to the user. Passwords are normally six position, computer generated, random groups of letters and numbers. Only users have access to passwords. If a user forgets his or her password, it must be reset by AMI-1 to a new value. The user should change the password to something that can be easily remembered when first logging on to LIS. Passwords must be changed every 90 days, but cannot be changed more often than every ten (10) days. Protect your USER ID and password. The owner of a USER ID is responsible for anything that is done by anyone using their USER ID and password!

In addition to the requirement to change Passwords every ninety (90) days, an added security measure has been initiated that will allow only three (3) unsuccessful log-on attempts in any 24 hour period.

This could happen as a result of incorrect input by error, or by someone trying to log-on using another person's ID. In the event this happens, the user will receive the message, "ACCESS HAS BEEN REVOKED". The user will then need to be cleared through the ADP Security Office, (405) 954-3000.

2.0 LOGGING ON TO LIS COM-LETE LOGON SCREEN

```

      FFFFFFFF AAAA   AAAA   NNN       NNN EEEEEEEEE TTTTTTTTTT
      FFFFFFFF AAAAAA AAAAAA NNNN      NNN EEEEEEEEE TTTTTTTTTT
      FFF      AAA  AAA  AAA  AAA NNNNN   NNN EEE             TTT
      FFFFFFFF AAAAAA AAAAAA NNN  NN   NNN EEEEEEEEE   TTT
      FFFFFFFF AAAAAA AAAAAA NNN  NN NNN EEEEEEEEE   TTT
      FFF      AAA  AAA  AAA  AAA NNN     NNNN EEE             TTT
      FFF      AAA  AAA  AAA  AAA NNN     NNNN EEEEEEEEE   TTT
      FFF      AAA  AAA  AAA  AAA NNN     NNN EEEEEEEEE   TTT PX 3.5

```

WARNING:UNAUTHORIZED ACCESS IS CONSIDERED A CRIMINAL ACT.
 SECTIONS 641 AND 1030 OF TITLE 18 USC.

```

*****
*                PLEASE ENTER REQUESTED ACCESS INFORMATION.                *
* LOGON-ID :LGACXXX   HOST:           P210       DATE :10/16/95             *
* PASSWORD :*****    TERMINAL-ID :LG03LU64    TIME :07:34:42             *
* NEW PASSWORD:        TRANSFER:           MODEL :3292-2A                 *
*                                                                HELP :(405) 954-3000 *
*****

```

*** PRODUCTION TPX ON SYSTEM P210 ***

FOR HELP DESK DIRECTORY SELECT "HELP DESK" APPLICATION FROM YOUR MENU

PF1 = HELP PF3 = LOGOFF

FIGURE 1 - LOGON SCREEN

Input your ID code at the **LOGON-ID** field. Tab down to the next or **PASSWORD** line, and input your password. Press **[ENTER]**. You are now logged on to LIS.

At the **LIS MAIN MENU**, screen **LIS010**, (Pg. 13) select the option number for the desired LIS Subsystem. Input <option number>, press **[ENTER]**.

2.1 CHANGING LIS PASSWORDS

At the **FAA/DOT COM-plete SYSTEM LOGON SCREEN**, input your ID code at the **USER ID** line. [TAB] down to the **PASSWORD** line and input your password. Do not **[ENTER]** yet. Press [TAB] to move the cursor to the "NEW PASSWORD" line. Input the new password. The password must be at least six (6) positions and may be up to eight (8) positions. Select something easily remembered for your new password. Press **[ENTER]**.

You will be asked to **PLEASE CONFIRM PASSWORD CHANGE**. Input the new password again, EXACTLY the same as the first time. When the new password is input the second time and accepted by the system, the old password has been replaced.

2.2 SCREEN NUMBERING CONVENTIONS

Throughout LIS, screens are numbered in the upper right corner. The numbering convention provides easy identification of both the subsystem and program to system users, functional analysts, and programmers. For example :


```
08/31/92          FAA LOGISTICS AND INVENTORY SYSTEM          LIS010
                  **  MAIN SYSTEM MENU  **

                08/20/92    PLEASE INQUIRE BULLETIN BOARD
                  SYSTEM ALERTS -- SPECIAL INFORMATION

                LIS STAFF HOT-LINE NUMBER: 8-405-680-3447

1 - PMMS PRODUCTION SYSTEM          11 - ENGINEERING DATA BASE SYSTEM
2 - NAME/ADDRESS CHANGE REQUEST      12 - PROJECT MATERIEL SHIP/RECEIVE
3 - UTILIZATION SCREENING & DISP.    88 - LIS BULLETIN BOARD
4 - CATALOGING                      99 - LOGOFF
5 - CUSTOMER SERVICE EVALUATION
6 - MAIL/CONNECTION
7 - LIS TABLES/PHONE NUMBERS
8 - INVENTORY MANAGEMENT
9 - ONLINE REQUISITIONING
10 - LIS INTERNAL FILE MAINT

                        ENTER OPTION : _
```

FIGURE 2 - LIS010

"LIS010" identifies the **LIS MAIN SYSTEM MENU** screen.

Screen illustrations in user guides refer to screen numbers as users are conducted through these guides. Users should verify they are on the correct screen when following instructions.

2.3 LOGGING OFF LIS

After a user has completed work in the current session on LIS, he/she should log off. To log off, it is necessary to return to the **LIS MAIN SYSTEM MENU - LIS010**, (Pg. 13) screen. This process varies among functions. The use of Option **<99>** begins to exit the user back to the **LIS MAIN SYSTEM MENU**. The user may need to input **<99>** on more than one screen. To execute the process, input **<99>** and press **[ENTER]** until a return to **LIS MAIN SYSTEM MENU** screen is achieved.

At the **LIS MAIN SYSTEM MENU** screen, input Option **<99>** and press **[ENTER]** to exit the LIS. The screen should display the message.

THIS TERMINAL IS LOGGED ON TO UNFORMATTED SYSTEMS SERVICES.

This display indicates the user is still connected to the host computer. The exact keystroke sequence to disconnect from the host will depend on the users access methods into LIS.

2.4 MISCELLANEOUS INFORMATION

2.4.1 HOST COMPUTER SYSTEM ERROR MESSAGES

If the host computer is out of service or otherwise unavailable when the user tries to log on to LIS, several different messages may be displayed, E.G.:

SEQUENCE ERROR
UNSUPPORTED FUNCTION

CHAR. CODE SENSE FAILED -
UNABLE TO ESTABLISH SESSION
APPLICATION DOWN
INVALID COMMAND SYNTAX

Other computer error messages may be displayed; however, all mean the host computer is NOT available at this time. Try again later.

2.4.2 LIS ERROR MESSAGES

The first line of each screen in all LIS subsystems is reserved for error messages. If a transaction fails to process for any reason, an error message will be displayed and the cursor will move to the field which needs correction. For example, if a user tries to access a subsystem of LIS which is unauthorized, the following message will display :

INVALID OPTION FOR YOUR SECURITY LEVEL

Error messages have been designed to be as self-explanatory and explicit as possible. If there are any questions about specific error messages, contact the Logistics Automation Division, AML-100.

Should the user for any reason encounter a **SYSTEM ERROR**, a printout will be produced on a printer in the LIS Development team's area, giving all the information about the error. A contact name and phone number will also appear on the user screen.

Under normal circumstances, it is not necessary to call the contact person and notify him/her of the System Error. However, if the user has questions, he/she may call this individual. Press **[ENTER]** to remove the notice from the screen.

2.4.3 TIME OUT DUE TO INACTIVITY

The host computer senses user activity when the **[ENTER]** key is pressed. Depending on the number of users in the system, the "time out" may vary from five to ten minutes from last **[ENTER]** key activation. If, when an option is selected and **[ENTER]** is pressed, the screen displays the message:

USER MUST LOG ON

the user has timed out and must logon again as per previous instructions in **Paragraph 2.0**, (Pg. 11 & 12).

Another message indicating time out condition is:

NAT3009 LAST TRANSACTION HAS BEEN BACKED OUT OF DATABASE.

This message may result when a user has held a record for over five (5) minutes without any activity. Any changes made to the held record are lost and will have to be re-input.

3.0 MATERIAL REQUIREMENTS PLANNING (MRP) MAIN MENU

The Material Requirements Planning (MRP) Main Menu provides the Inventory Managers the means to access the information from the new MRP processes, including Requirements (under MRP Queue), Additional Demand capabilities, MRP Data inquiry options, Demand History inquiry function (like the option on the Inquiries menu), and MRP Parameters activities. Each one of these activities is covered under its own section.

NOTE : The Excess and Stratification subfunctions within the MRP function are covered in separate user guides, not in this one.

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING	MRP200
** MAIN MENU **		

1 - MRP QUEUE	6 - EXCESS	
2 - ADDITIONAL DEMAND MAINTENANCE	7 - STRATIFICATION	
3 - MRP DATA (TABLE) INQUIRY		
4 - DEMAND HISTORY INQUIRY		
5 - PARAMETER DATA MAINTENANCE		
29 - SELECT FAST PATH EXIT		
99 - EXIT TO INVENTORY MANAGEMENT MAIN MENU		

ENTER OPTION: ____		

FIGURE 3
MRP MAIN MENU - MRP200

3.1 MATERIAL REQUIREMENTS PLANNING (MRP) QUEUE FUNCTION

The new MRP Queue process provides the Inventory Managers with the capability to review the following types of records:

Review Reason Notices

Requirement Records

FED / MIL STOCK BUY STATUS [FEDSTRIP / MILSTRIP]

Additional information is provided about each type of record within the section covering the details on that record type.

The Review Reason Notices are generated either from the MRP Forecast Demand process (identifying "out of tolerance" conditions determined during the forecasting computations) or from Additional Demand overflow conditions caused by delete / transfer File Maintenance actions.

The Requirement records are for repairs and acquisition actions and are generated from the MRP Requirements process. All Requirement records will be reviewed before being submitted for further processing. This includes FEDSTRIP / MILSTRIP records that were previously reviewed after being sent to the source.

Within the MRP Queue detail review processes, the Inventory Managers have the capability to route a requirement to a different source for this one time only. For example, this capability would allow him/her to send an item normally repaired in the shops to commercial repair.

The Inventory Managers also have the capability to identify when one of the elements used in the requirements computation was incorrect and to request a recomputation.

The Inventory Manager can then determine which is the appropriate replenishment quantity - the original quantity, the re-computed quantity, or something else entirely.

Within the MRP Queue process, the Inventory Manager has been provided viewing and action capability for status returned on replenishment actions by a FEDSTRIP / MILSTRIP source. Those actions are not limited to just "canceled" records.

The status may be "canceled," a long delivery date, or an offered substitute. The clear-text Reason Code will identify the problem with the record, and the Inventory Manager can correct the replenishment request and resubmit it to the FEDSTRIP / MILSTRIP source. The Inventory Manager also has the capability to submit the Requirement record for commercial acquisition through the Automated Procurement System (APS).

Once the Inventory Manager has completed their review of the MRP Queue records, he/she should go to APS to complete the work for any records sent to that system. Those actions within APS will actually result in the procurement request being transmitted to the Office of Acquisition (AMQ-1). The MRP Queue process will be linked to other functions in LIS via the FAST PATH capability. The primary usage is expected to be going to APS, but it may also be used to go to the new FEDSTRIP / MILSTRIP processes or one of the existing Inventory Management functions.

Details are provided about each type of record within the section covering the details on those records.

Requirement records will be put on the MRP Queue on a weekly basis, and most Inventory Managers will review it once a week and early in the week. However, responses from FEDSTRIP / MILSTRIP sources may be received at any time, so FED/MIL Inventory Managers may need to look at the MRP Queue more frequently than other Inventory Managers.

MRP Queue records for printing and for local shop repair and fabrication are in this process for information only.

All activities to complete the actual replenishment action will occur outside of the automated system.

When the existing Production Control system ("Depot Support" [DS]) is incorporated into LIS, it is expected that the local shop repair and fabrication Requirement records can then be passed to it in an automated fashion.

Plans are still being evaluated for further automated handling of repair records for AVN Repair Source Codes. For the interim, these records will continue to be "information only."

3.1.1 MRP QUEUE - MAIN MENU - MRP230

The MRP Queue process provides the means to view records that are written by other MRP functions, specifically, Forecasted Demand (Review Reason Notice records) and Requirements (Acquisition and Repair records). It is accessible by Inventory Management personnel from the MRP Main Menu.

It provides the capability to view the records in summary and detail form. From the detail screens, there are additional activities that vary according to the type of record.

These activities include viewing the Master Inventory record, printing the record, re-computing the requirement quantity (with different element values), discarding the record, and passing the record on to the next process for action, if appropriate.

(Details on actual activities for each type of record are provided in each section discussing the specific screens.)

05/01/1998	LIS / MATERIAL REQUIREMENTS PLANNING	MRP230
** MRP QUEUE MANAGEMENT - MAIN MENU **		

NAME: DOE, J.	ORGANIZATION: 486A	

	1 - REVIEW REASON NOTICES	
118	2 - REQUIREMENTS - EXPENDABLE - COMMERCIAL	
14	3 - REQUIREMENTS - EXPENDABLE - FEDSTRIP/MILSTRIP	
8	4 - REQUIREMENTS - EXPENDABLE - SHOP FABRICATION	
	5 - REQUIREMENTS - EXPENDABLE - PRINTING (FORMS/INSTRUCTIONS BOOKS)	
	6 - REQUIREMENTS - E&R REPAIR - COMMERCIAL	
	7 - REQUIREMENTS - E&R REPAIR - LOCAL SHOPS	
	8 - REQUIREMENTS - E&R ACQUISITION	
	9 - REQUIREMENTS - FED/MIL STOCK BUY STATUS	

ENTER OPTION: ____	ITEM MANAGER: 92	19 - EXIT TO MRP MAIN MENU
	NSN: _____	29 - SELECT FAST PATH EXIT
		99 - EXIT TO INV MGMT MAIN MENU

FIGURE 4**MRP QUEUE - MAIN MENU - MRP230**

The MRP Queue Main Menu screen displays the various types of records that can be viewed under the MRP Queue option. The Inventory Manager Code is defaulted to that for the User-ID accessing the system.

This screen displays the name and organizational identifier associated with that Inventory Manager Code and the record counts for each type of record.

The user can also change the Inventory Manager code and view records for other Inventory Managers. However, as in the regular Transaction Queue process, except for special security levels, access to another Inventory Manager's queue records is limited to Inventory Managers within the user's **same organization**. Records cannot be viewed across organizational lines. If the user requests an Inventory Manager number that is not within his / her organization, the system will respond with a message of:

ACCESS DENIED, ITEM MANAGER CODE ENTERED NOT IN _____
(user's organization)

The categories of records are identified as follows:

REVIEW REASON NOTICES	Unique MRP Q-Status (M1)
EXPENDABLE-COMMERCIAL	MRP Q-Status M2; Inventory Category not 6, F, or 9; Procurement Source Code (PSC) = AIP, ANA, ANC, ANP, ARP, ATP, A2C, A23, IBM, NNB, XXX (except Forms and Instruction Books)
EXPENDABLE - FED/MIL	MRP Q-Status M2; Inventory Category not 6, F, or 9; Procurement Source Code (PSC) = A12, A75, Bxx, Fxx, G13, MPB, Nxx (except NNB), Sxx, ZNC
EXPENDABLE - SHOP FAB	MRP Q-Status M2; Inventory Category not 6, F, or 9; Procurement Source Code (PSC) = ALF

**EXPENDABLE - PRINTING
(FORMS/INST. BOOKS)**

MRP Q-Status M2; Inventory Category not 6, F, or 9; Federal Supply Class (FSC) 0052 or 0056, or FSC 7530/7540/7610 with Procurement Source Code (PSC) = APS, WPS

E&R REPAIR-COMMERCIAL

MRP Q-Status M3; Repair Source Code (RSC) = 030

**E&R REPAIR-LOCAL
SHOPS/AVN**

MRP Q-Status M3; Repair Source Code (RSC) not 030

E&R ACQUISITION

MRP Q-Status M2, Inventory Category 6 or F

FED/MIL STOCK BUY STATUS Unique MRP Q-Status (M4)

There are two versions of the Main Menu screen that can be displayed:

The first version is as shown previously, and this is the version the regular Inventory Managers and their supervisors will see.

The second version is shown following this information, and it is displayed when the Security Level for the applicable User-ID is Level 5 (AML-610) or Level Z (LIS).

The additional record counts displayed cover those records that could not be identified to a good Inventory Manager Code and organizational identifier (Org-ID).

05/01/1998	LIS / MATERIAL REQUIREMENTS PLANNING	MRP230
** MRP QUEUE MANAGEMENT - MAIN MENU **		

NAME: SMITH, J.	ORGANIZATION: 486A	

	1 - REVIEW REASON NOTICES	
87	2 - REQUIREMENTS - EXPENDABLE - COMMERCIAL	
25	3 - REQUIREMENTS - EXPENDABLE - FEDSTRIP/MILSTRIP	
12	4 - REQUIREMENTS - EXPENDABLE - SHOP FABRICATION	
	5 - REQUIREMENTS - EXPENDABLE - PRINTING (FORMS/ INSTRUCTIONS BOOKS)	
	6 - REQUIREMENTS - E&R REPAIR - COMMERCIAL	
	7 - REQUIREMENTS - E&R REPAIR - LOCAL SHOPS	
	8 - REQUIREMENTS - E&R ACQUISITION	
	9 - REQUIREMENTS - FED/MIL STOCK BUY STATUS	
770	10 - INVALID ITEM MANAGER REQUIREMENTS	
	11 - INVALID ITEM MANAGER REVIEW RSN NOTICE	

ENTER OPTION: ____	ITEM MANAGER: 91	19 - EXIT TO MRP MAIN MENU
	NSN: ____ _	29 - SELECT FAST PATH EXIT
		99 - EXIT TO INV MGMT MAIN MENU

FIGURE 5

MRP QUEUE - MAIN MENU - MRP200 (HIGH SECURITY LEVEL)

In this example, the records would be identified and categorized as detailed before, with the following additional record types:

INVALID REQUIREMENTS MRP Q-Status M2/M3, no valid Org-ID

INVALID REVIEW REASON
NOTICES

MRP Q-Status M1, No valid Org-ID

To access another Inventory Manager's MRP Queue records, within the users' organization, input the appropriate number in the ITEM MANAGER field. (The name and organizational identifier for the applicable Inventory Manager number will display at the top of the screen, and the appropriate counts for each category of record will display.)

The following OPTIONS are available from the MRP Queue Main Menu:

OPTION <1> **REVIEW REASON NOTICES** - Provides a summary screen listing all Review Reason Notices for the indicated Inventory Manager for further review and processing.

OPTION <2> **REQUIREMENTS - EXPENDABLE - COMMERCIAL** - Provides a summary screen listing all Requirement records for the indicated Inventory Manager meeting the "Expendable - Commercial" criteria for further review and processing.

- OPTION <3> **REQUIREMENTS - EXPENDABLE - FEDSTRIP / MILSTRIP -**
Provides a summary screen listing all Requirement records for the indicated Inventory Manager meeting the "Expendable - FEDSTRIP / MILSTRIP" criteria for further review and processing.
- OPTION <4> **REQUIREMENTS - EXPENDABLE - SHOP FABRICATION -**
Provides a summary screen listing all Requirement records for the indicated Inventory Manager meeting the "Expendable - Shop Fabrication" criteria for further review and processing.
- OPTION <5> **REQUIREMENTS - EXPENDABLE - PRINTING (FORMS/ INSTRUCTIONS BOOKS) -** Provides a summary screen listing all Requirement records for the indicated Inventory Manager meeting the "Expendable - Printing..." criteria for further review and processing.
- OPTION <6> **REQUIREMENTS - E&R REPAIR - COMMERCIAL -** Provides a summary screen listing all Requirement records for the indicated Inventory Manager meeting the "E&R Repair -Commercial" criteria for further review and processing.
- OPTION <7> **REQUIREMENTS - E&R REPAIR - LOCAL SHOPS -** Provides a summary screen listing all Requirement records for the indicated Inventory Manager meeting the "E&R Repair - Local Shops" criteria for further review and processing.

- OPTION <8> **REQUIREMENTS - E&R ACQUISITION** - Provides a summary screen listing all Requirement records for the indicated Inventory Manager meeting the "E&R Acquisition" criteria for further review and processing.
- OPTION <9> **REQUIREMENTS - FED/MIL STOCK BUY STATUS** - Provides a summary screen listing all status records on FEDSTRIP / MILSTRIP stock buys for the indicated Inventory Manager. (The records displayed will not be limited to just "cancellations" - will also include other types of status.)
- The records are available for further review and processing, as needed.
- OPTION <10> **INVALID ITEM MANAGER REQUIREMENTS** - For selected Security Levels (5 and Z), provides a summary screen listing all Requirement records that could not be identified to a valid Inventory Manager/organization identifier. The records are presented in summary form only for discarding or routing to a valid Inventory Manager designator.
- OPTION <11> **INVALID ITEM MANAGER REVIEW RSN NOTICE** - For selected Security Levels (5 and Z), provides a summary screen listing all Review Reason Notice records that could not be identified to a valid Inventory Manager/organization identifier.

The records are presented in summary form only for discarding or routing to a valid Inventory Manager designator.

- OPTION <19> **EXIT TO MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18).
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on “**FAST PATH FEATURE**” (Pg. 222) for details.
- OPTION <99> **EXIT TO INV MGMT MAIN MENU** - Returns the user to the **INVENTORY MANAGEMENT MAIN MENU (INV001)**.

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

In the following pages, activities under each of the options are explained in further detail, with examples of the summary and detail level screens. The options available within each screen are identified, and processing details are explained.

3.1.2 MRP QUEUE - REVIEW REASON NOTICES - MRP231

The Review Reason Notice records are generated primarily from the Forecast Demand process, but certain records may also be generated from selected file maintenance batch transactions that cannot process.

The records from the Forecast Demand process will identify when the demand has far exceeded or fallen below the expected values. In addition, they will identify if one of the alternate forecasting methods is doing a better job of predicting demand than the primary forecasting method is doing. These records are purely informational. The main alternatives available to the Inventory Manager on these records are to view, print, or discard the record, or skip to the next record.

The records from the file maintenance processes will identify when a particular transaction could not be processed because there were certain MRP records that existed and should not have been there. For example, if there are Additional Demand records, certain delete and transfer (D&T) actions cannot occur. Usually, these edits will be done online, but if the transaction comes through the batch process, there had to be a way of letting the Inventory Manager know of the problem and take care of it.

NOTE : During the initial system operations, the Review Reason Notice logic from the Forecast Demand process will not generate actual Review Reason Notice records. It will generate counts only in the system processing documentation, for review by LIS personnel.

It is expected that the system will need some time to settle into the reporting processes plus certain thresholds may need to be increased or decreased. During this "adjustment period," the Inventory Managers will not be confronted with an excessive number of Review Reason Notice records. The Inventory Managers will continue to receive Review Reason Notice records from the file maintenance processes.

The Inventory Manager is able to view the records at either a summary or detail level, and he/she can discard the records at either level. In addition, at the detail level, the Inventory Manager has an option for viewing Master Inventory data to further understand the reason for notice.

3.1.2A REVIEW REASON NOTICES (SUMMARY SCREEN) - MRP231

08/31/92		LIS / MATERIAL REQUIREMENTS PLANNING (MRP)				MRP231	
** REVIEW REASON NOTICES **							
					PROCESS		
<u>*</u>	<u>NSN</u>	<u>DESCRIPTION</u>	<u>APP-TO</u>	<u>DATE</u>	<u>DAYS</u>		
—	4910 00 063 0989	PAN DRN 12X8X6 6QT	SCH A	08/29/92	2		
RSN: DEMAND FILTER TRIP - CURRENT MONTH DEMAND OUTSIDE OF ACCEPTABLE LIMITS							
—	5330 01 063 6438	GKT 265041-0001	MARK1E	08/29/92	2		
RSN: ALTERNATE FORECAST METHOD #1 HAS SMALLER ERROR							
—	5330 01 063 6438	GKT 265041-0001	MARK1E	08/29/92	2		
RSN: ALTERNATE FORECAST METHOD #2 HAS SMALLER ERROR							
—	5330 01 025 0830	GKT 907037-1	ANGRN27	08/29/92	2		
RSN: FORECAST RESET - THIS MONTH							
** MORE **							
* = 'D' FOR DISCARD, 'X' FOR DETAIL AND PRESS ENTER TO CONTINUE							
OR ENTER OPTION: 1 - REPEAT DISPLAY FROM TOP 29 - SELECT FAST PATH EXIT							
9 - MRP QUEUE MAIN MENU 99 - MRP MAIN MENU							

FIGURE 6

MRP QUEUE - REVIEW REASON NOTICES - MRP231 (SUMMARY)

This screen displays multiple Review Reason records when OPTION <1> is selected from the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 22). The information displayed consists of the NSN, DESCRIPTION, APP-TO, PROCESS DATE when the record was created, and number of DAYS the record has been on the MRP Queue. The RSN will be on the second line. The records are displayed in NSN sequence.

NOTE : This selection screen will not display if there is only one transaction available for processing. Only the detail screen **MRP231A**, (Pg. 35) will be displayed.

Up to six Review Reason Notice records will be displayed on each summary screen. One or more (or all) records can be selected for viewing in detail and possible additional action by inputting <X> in the field preceding the NSN.

If **** MORE **** is displayed in the bottom right corner of the screen, it indicates that there are more records available. These can be seen by continuing to press **[ENTER]**. When **** END **** is displayed in the bottom right corner, the last record has been presented. Press **[ENTER]** and the user will be returned to the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 22).

The user may also elect to discard one or more Review Reason Notice records from the summary screen by inputting <D> in the same selection field as shown before. The process will place the word **DISCARDED** on the first line (next to DAYS) and will remove the selection space so the record cannot be selected again.

NOTE : The user should exercise care and judgment before discarding records that have not been reviewed in detail.

Other available OPTIONS are:

OPTION <1> **REPEAT DISPLAY FROM TOP** - Returns the user to the first record on the first screen.

- OPTION <19> **MRP QUEUE MAIN MENU** - Returns the user to the **MRP QUEUE MAIN MENU** - **MRP230**, (Pg. 22).
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on “FAST PATH FEATURE” (Pg. 222) for details.
- OPTION <99> **MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

3.1.2B REVIEW REASON NOTICES (DETAIL SCREEN) - MRP231A

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING (MRP)	MRP231A
** REVIEW REASON NOTICES **		
PROCESS DATE: 08/29/92	IM: 67	PROCESS TIME 12:00:00
RSN: DEMAND FILTER TRIP - CURRENT MONTH DEMAND OUTSIDE OF ACCEPTABLE LIMITS		
NSN: 4910 00 063 0989	DESC: PAN DRN 12X8X6 6QT	APP-TO: SCH A
EXECUTIVE FORECAST METHOD: 01 SINGLE EXP SMOOTHING		
ALTERNATE #1 FORECAST METHOD: 03 `N' MONTH MOVING AVG		
ALTERNATE #2 FORECAST METHOD: 02 ADAPTIVE EXP SMOOTHING		
FORECAST RESET FLAG: N		
1 - DISCARD REVIEW REASON NOTICE	20 - PRINT REVIEW REASON NOTICE	
2 - VIEW MASTER	29 - SELECT FAST PATH EXIT	
9 - MRP QUEUE MAIN MENU	99 - MRP MAIN MENU	
PRESS ENTER TO CONTINUE OR ENTER OPTION: ____		

FIGURE 7

MRP QUEUE MANAGEMENT - REVIEW REASON NOTICES (DETAIL)

The detail screen will be presented when the Inventory Manager selects a record from the summary screen and presses **[ENTER]**. It will show him/her the Reason Code text and some informational elements related to the item's MRP parameters.

The **OPTIONS** available from this detail screen and the processing edits and controls are:

- OPTION <1> **DISCARD** - Update the Queue Status on the Review Reason Notice record to show it as discarded. Return the Inventory Manager to the summary screen or to the next detail record that was selected. If the return is to the summary screen, that line will be marked with "DISCARDED" and will not show a selection space (record cannot be selected again).
- OPTION <2> **VIEW MASTER** - The information shown under this option is a view of selected elements from the current Master Inventory file. The process will use the NSN from the Review Reason Notice record to check for a Master Inventory record and, as needed, a Delete/Transfer (D&T) record. If the NSN has a D&T record, there will be a message at the top of the screen stating so.
- OPTION <9> **MRP QUEUE MAIN MENU** - Returns the user to the **MRP QUEUE MAIN MENU** - **MRP230**, (Pg. 22).
- OPTION <20> **PRINT REVIEW REASON NOTICE** - Prints report LGL231 (REVIEW REASON NOTICE), and returns user to the summary screen.
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on "**FAST PATH FEATURE**" (Pg. 222) for details.

OPTION <99> **MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU - MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

3.1.3 MRP QUEUE - REQUIREMENTS (GENERAL INFORMATION)

The Requirements portion of the MRP Queue function will provide for review of all records generated out of the requirements computations. These will include records for acquisition of expendable and exchange and repair (E&R) items, as well as repair of E&R items.

The viewing options include summary level and detail screens. From the summary level screen, the Inventory Manager has the option of discarding a record or viewing the details. From the detail screen, the Inventory Manager can print the record, view additional information, discard the record, send it to the next point for action, or skip it for the time being.

If the Inventory Manager elects to send a Requirement record to the next point for action, he/she may send it to the normal point of action as indicated by the Procurement Source Code (for acquisitions) or Repair Source Code (for repairs), or send it to an alternate source for action. This will give the Inventory Manager the flexibility to utilize an alternative source **for this single order** if their knowledge about the particular item indicates that is the proper course of action to achieve their replenishment.

In the sections that follow this one, specific examples of each type of Requirement summary and detail screen are shown, with details on processing within each record type. The summary and detail screens used with each record type are similar.

3.1.4 REQUIREMENTS - EXPENDABLE - COMMERCIAL - MRP232

(Queue Status = M2; Inventory Category not 6, F, or 9; Procurement Source Code (PSC) = AIP, ANA, ANC, ANP, ARP, ATP, A2C, A23, IBM, NNB, XXX [excluding Forms and Instruction Books])

3.1.4A REQUIREMENTS - EXPENDABLE - COMMERCIAL (SUMMARY SCREEN)

08/31/92		LIS / MATERIAL REQUIREMENTS PLANNING							MRP232
** REQUIREMENTS - EXPENDABLE - COMMERCIAL **									

	ACTION							PROCESS	
<u>*</u>	<u>NSN</u>	<u>IND</u>	<u>DESCRIPTION</u>	<u>UI</u>	<u>QTY</u>	<u>AVG W/P</u>	<u>DATE</u>		
—	4320 01 018 3856	Y	PUMP LUB	EA	10	119.00	08/29/92		
RSN: ACQUISITION RECORD									
—	4720 01 152 2668	Y	HOSE ASSY	EA	15	6.10	08/29/92		
RSN: ACQUISITION RECORD									
—	5310 00 953 1826	N	WSH D5288-2M5	EA	4300	0.17	08/27/92		
RSN: ACQUISITION RECORD									
—	5945 00 493 1751	N	RLY M5757-9-035	EA	45	17.80	08/27/92		
RSN: REQUIREMENT RECORD FOR SECONDARY ITEM - CHECK OTHER SUBS AND PREFERRED									
—	5945 00 901 6606	N	RLY MOT R11465	EA	3	439.73	08/27/92		
RSN: ACQUISITION RECORD									
—	6240 01 138 6450	N	ETUBE S464	EA	65	41.00	08/27/92		
RSN: ACQON RCD - CHECK OTHER QUANTITIES (BORR/LOAN/BIN INSP/RECYCLE/SURVEY)									
** MORE **									
* = 'D' FOR DISCARD, 'X' FOR DETAIL AND PRESS ENTER TO CONTINUE									
OR ENTER OPTION: 1 - REPEAT DISPLAY FROM TOP 29 - SELECT FAST PATH EXIT									
9 - MRP QUEUE MAIN MENU 99 - MRP MAIN MENU									

FIGURE 8
MRP QUEUE MANAGEMENT - REQUIREMENTS
EXPENDABLE - COMMERCIAL (SUMMARY)

This screen displays multiple Requirement records that meet the "Expendable - Commercial" criteria when OPTION <2> is selected from the **MRP QUEUE MAIN**

MENU - MRP230, (Pg. 22). The information displayed consists of the NSN, ACTION-IND, DESCRIPTION, UI, RQMT QTY, AVG W/P, and PROCESS DATE when the record was created on the MRP Queue. The RSN will be on the second line. The records are displayed in NSN sequence.

NOTE : This selection screen will not display if there is only one transaction available for processing. Only the detail screen **MRP232A**, (Pg. 42) will be displayed.

Up to six Requirement records will be displayed on each summary screen. One or more (or all) records can be selected for viewing in detail and possible additional action by inputting <X> in the field preceding the NSN.

If **** MORE **** is displayed in the bottom right corner of the screen, it indicates that there are more records available. These can be seen by continuing to press **[ENTER]**. When **** END **** is displayed in the bottom right corner, the last record has been presented. Press **[ENTER]** and the user will be returned to the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 22).

The user may also elect to discard one or more Requirement records from the summary screen by inputting <D> in the same selection field as shown before. The process will change the ACTION-IND to **Y**, place the letter **D** at the end of the second line, and remove the selection space so the record cannot be selected again.

NOTE : The user should exercise care and judgment before discarding records that have not been reviewed in detail.

A **P** at the end of the second line (with no selection space) indicates that the record was processed by the user at the detail screen level. The ACTION-IND will also have **Y** in it.

Additionally, the ACTION-IND will be automatically changed to **Y** (Yes) by the system if the user proceeds to the detail screen and then presses **[ENTER]** to return to the summary screen. This will indicate the record has been reviewed at the detail level. The ACTION-IND will not be updated if the user elects to utilize one of the "exit" options detailed below from the detail screen.

There is no manual update capability for the element ACTION-IND.

Other available OPTIONS are:

- OPTION <1> **REPEAT DISPLAY FROM TOP** - Returns the user to the first record on the first screen.
- OPTION <19> **MRP QUEUE MAIN MENU** - Returns the user to the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 22).
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on "**FAST PATH FEATURE**" (Pg. 222) for details.
- OPTION <99> **MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU - MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

3.1.4B REQUIREMENTS - EXPENDABLE - COMMERCIAL (DETAIL SCREEN)

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING		MRP232A
** REQUIREMENTS - EXPENDABLE - COMMERCIAL **			

PROCESS DATE: 08/29/92	IM: 92	PROCESS TIME: 06:36:12	
RSN: ACQUISITION RECORD			
NSN : 4320 01 018 3856	DESC: PUMP LUB	APP-TO: ASR8	
ORIG NSN : 4320 01 018 3856	S&I : B	C/A: 44	BORR :
AVG W/P : 119.00	SH/LIFE:	PSC: ANP	LOAN :
LATE PROC: 108.00	QUP CD : 1	PLT: 3	BIN :
TYPE UP : 1	QUP TYP: 3	EOQ: 1	RTV :
REQMT QTY: 10_____	U/I: EA	SURVEY:	
REQMT CST: 1190.00			
SERV : 12	F/D : 34	DIA : 15	
	ADDL DMD:	D/O :	
	SAFE STK: 6	RESERVED:	

1 - NORMAL PROCESS	5 - VIEW MASTER	9 - MRP QUEUE MAIN MENU	
2 - DISCARD		20 - PRINT REQUIREMENT RECORD	
3 - RECOMPUTE REQMT	PSC: ____	29 - SELECT FAST PATH EXIT	
4 - FED/MIL	ADVICE: ____	99 - MRP MAIN MENU	
PRESS ENTER TO CONTINUE OR ENTER OPTION: ____			

FIGURE 9

**MRP QUEUE MANAGEMENT - REQUIREMENTS
EXPENDABLE ACQUISITION - COMMERCIAL (DETAIL)**

When an Inventory Manager selects a record for detail review, a detail screen will be presented that shows the key information used to determine the requirement quantity for that particular acquisition action.

This will provide the Inventory Manager with a clear view of how the system arrived at the indicated quantity. The actual elements displayed on a detail screen will vary according to the type of item and the type of requirement generated.

The results of any action taken on the detail screen will be reflected on the summary screen when the Inventory Manager returns to it. **D** on the far right side of the screen indicates that record has been "Discarded," while **P** indicates it has been "Processed."

When the user requests the detail screen, the process will also read the Master Inventory file using the NSN in the MRP Queue Requirement record.

If the NSN is on the Master Inventory file, the detail screen will be displayed with no message at the top.

If the NSN is not on the Master Inventory file, the process will check for a Delete/Transfer (D&T) record. If one is found, the process will display the detail screen with the following message:

NSN XXXX-XX-XXX-XXXX-X TRANSFERRED TO XXXX-XX-XXX-XXXX-X

The NSN on the detail screen will be changed to the new NSN, while the ORIG-NSN will still reflect the NSN on the original Requirement record.

CAUTION: The Inventory Manager needs to check the Master Inventory record before continuing with a D&T NSN because the process will build the record appropriate for the original MRP Queue PSC.

If the management method is different, the Inventory Manager may need to discard the current record or redirect it to the appropriate process.

If no record is found on the D&T file, the process will display the detail screen with the message:

NSN NOT ON RECORD, CANNOT BE PROCESSED

The only available input fields on this detail screen are:

REQMT QTY	May be manually changed
PSC	Procurement Source Code - Update allowed only if OPTION = 4 FED/MIL)
ADVICE	Advice-Status Code - Update allowed only if OPTION = 4 (FED/MIL)

The OPTIONS available from this detail screen and the processing edits and controls are:

OPTION <1>	NORMAL PROCESS - Process in accordance with the type of record and the Procurement Source Code - format an "Expendable Requirements" record for the Automated Procurement System (APS).
------------	--

The Inventory Manager will need to go into APS to complete the action on this record, and this can be done by using the FAST PATH option.

The process will consider the following before formatting the APS record:

- If NSN is not on the Master Inventory or Delete/Transfer file, this option will not be allowed.
- If the ORIG-NSN was a secondary and it has deleted and transferred, the process will continue normally with the new NSN from the Delete/ Transfer record.
- If the NSN is a secondary (Substitute and Interchangeability {S&I} Code = 3, A, C, Y), the S&I processing window will be presented (see separate section on "Processing Window for Secondary Items).

OPTION <2>

DISCARD - Update the Queue Status on the Requirement record to show it as discarded. Return the Inventory Manager to the summary screen or to the next detail record that was selected. If the return is to the summary screen, mark that line with a **D** (for "DISCARDED") and eliminate the selection space (record cannot be selected again).

- OPTION <3> **RECOMPUTE REQUIREMENT** - Display the appropriate "RECOMPUTE" screen.
See the separate section on "'Recompute' Options."
- OPTION <4> **FED/MIL** - This option will allow the user to send a stock buy to a FEDSTRIP / MILSTRIP source for an item that is normally acquired from a commercial vendor. The user will be **required** to provide a PSC (Procurement Source Code), which will identify to which FEDSTRIP / MILSTRIP source the request will be sent. ADVICE will be **optional**. A record will be written for the FEDSTRIP/MILSTRIP process to handle.
- OPTION <5> **VIEW MASTER** - Display "View Master" screen.
See separate section on "View Master" Option.
- OPTION <9> **MRP QUEUE MAIN MENU** - Returns the user to the **MRP QUEUE MAIN MENU** - **MRP230**, (Pg. 22).
- OPTION <20> **PRINT REQUIREMENT RECORD** - Prints report LGI232 (REQUIREMENTS - EXPENDABLE - COMMERCIAL), and returns user to the summary screen.
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on "**FAST PATH FEATURE**" (Pg. 222) for details.

OPTION <99> **MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU - MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

3.1.5 REQUIREMENTS - EXPENDABLE - FED/MIL - MRP233

(Queue Status = M2; Inventory Category not 6, F, or 9; Procurement Source Code (PSC) = A12, A75, Bxx, Fxx, G13, MPB, Nxx (except NNB), Sxx, ZNC). See below.

3.1.5A REQUIREMENTS - EXPENDABLE - FED/MIL (SUMMARY SCREEN)

08/31/92		LIS / MATERIAL REQUIREMENTS PLANNING							MRP233	
** REQUIREMENTS - EXPENDABLE - FEDSTRIP/MILSTRIP **										

		ACTION							PROCESS	
<u>*</u>	<u>NSN</u>		<u>IND</u>	<u>DESCRIPTION</u>	<u>UI</u>	<u>ROMT</u>	<u>QTY</u>	<u>AVG W/P</u>	<u>DATE</u>	
_	5960 00 082 4139		N	ETUBE 5751	EA	400		3.10	08/29/92	
RSN: ACQUISITION RECORD										
_	5961 00 609 0749		N	SCD 5082-3140	EA	9		58.52	08/29/92	
RSN: ACQUISITION RECORD										
_	5961 00 924 6981		N	SCD JAN1N4245	EA	50		0.56	08/27/92	
RSN: REQUIREMENT RECORD FOR SECONDARY ITEM - CHECK OTHER SUBS AND PREFERRED										
_	5962 00 264 3566		N	MC DUAL LINE RCV	EA	30		3.57	08/29/92	
RSN: ACQUISITION RECORD										
_	5962 00 396 2587		N	MC M38510-01601BCB	EA	90		2.51	08/27/92	
RSN: REQUIREMENT RECORD FOR SECONDARY ITEM - CHECK OTHER SUBS AND PREFERRED										
_	5962 00 428 7136		N	MC M38510-10103BGC	EA	110		4.15	08/29/92	
RSN: ACQUISITION RECORD										
** MORE **										
* = 'D' FOR DISCARD, 'X' FOR DETAIL AND PRESS ENTER TO CONTINUE										
OR ENTER OPTION: _ 1 - REPEAT DISPLAY FROM TOP 29 - SELECT FAST PATH EXIT										
9 - MRP QUEUE MAIN MENU 99 - MRP MAIN MENU										

FIGURE 10
MRP QUEUE MANAGEMENT - REQUIREMENTS
EXPENDABLE - FEDSTRIP/MILSTRIP (SUMMARY)

This screen displays multiple Requirement records that meet the "Expendable - FED/MIL" criteria when OPTION <3> is selected from the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 22).

The information displayed consists of the NSN, ACTION-IND, DESCRIPTION, UI, RQMT QTY, AVG W/P, and PROCESS DATE when the record was created on the MRP Queue. The RSN will be on the second line. The records are displayed in NSN sequence.

NOTE : This selection screen will not display if there is only one transaction available for processing. Only the detail screen (MRP233A) will be displayed.

Up to six Requirement records will be displayed on each summary screen. One or more (or all) records can be selected for viewing in detail and possible additional action by inputting <X> in the field preceding the NSN. If **** MORE **** is displayed in the bottom right corner of the screen, it indicates that there are more records available. These can be seen by continuing to press **[ENTER]**. When **** END **** is displayed in the bottom right corner, the last record has been presented. Press **[ENTER]** and the user will be returned to the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 22).

The user may also elect to discard one or more Requirement records from the summary screen by inputting <D> in the same selection field as shown before. The process will change the ACTION-IND to Y, place the letter **D** at the end of the second line, and remove the selection space so the record cannot be selected again.

NOTE : The user should exercise care and judgment before discarding records that have not been reviewed in detail.

A **P** at the end of the second line (with no selection space) indicates that the record was processed by the user at the detail screen level. The ACTION-IND will also have **Y** in it.

Additionally, the ACTION-IND will be automatically changed to **Y** (Yes) by the system if the user proceeds to the detail screen and then presses **[ENTER]** to return to the summary screen. This will indicate the record has been reviewed at the detail level. The ACTION-IND will not be updated if the user elects to utilize one of the "exit" options detailed below from the detail screen.

There is no manual update capability for the element ACTION-IND. Other available OPTIONS are:

- OPTION <1> **REPEAT DISPLAY FROM TOP** - Returns the user to the first record on the first screen.
- OPTION <19> **MRP QUEUE MAIN MENU** - Returns the user to the **MRP QUEUE MAIN MENU** - **MRP230**, (Pg. 22).
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on "**FAST PATH FEATURE**" (Pg. 222) for details.
- OPTION <99> **MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

3.1.5B REQUIREMENTS - EXPENDABLE - FED/MIL (DETAIL SCREEN)

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING	MRP233A
** REQUIREMENTS -EXPENDABLE -FEDSTRIP/MILSTRIP		

PROCESS DATE: 08/29/92	IM: 92	PROCESS TIME: 06:36:12
RSN: ACQUISITION RECORD		
NSN : 5960 00 082 4139	DESC: ETUBE 5751	APP-TO: ASR
ORIG NSN : 5960 00 082 4139	S&I : 2	C/A: 13 BORR :
AVG W/P : 3.10	SH/LIFE:	PSC: S9E LOAN :
LATE PROC:	QUP CD : 1	PLT: 3 BIN :
TYPE UP : 5	QUP TYP: 3	EOQ: 1 RTV :
REQMT QTY: 400_____	U/I: EA	SURVEY:
REQMT CST: 1240.00		
SERV : 410	F/D : 874	DIA :
	ADDL DMD:	D/O :
	SAFE STK: 73	RESERVED:

1 - NORMAL PROCESS	5 - VIEW MASTER	9 - MRP QUEUE MAIN MENU
2 - DISCARD		20 - PRINT REQUIREMENT RECORD
3 - RECOMPUTE REQMT	ADVICE: ____	29 - SELECT FAST PATH EXIT
4 - COMMERCIAL		99 - MRP MAIN MENU
PRESS ENTER TO CONTINUE OR ENTER OPTION: ____		

FIGURE 11
MRP QUEUE MANAGEMENT - REQUIREMENTS

When an Inventory Manager selects a record for detail review, a detail screen will be presented that shows the key information used to determine the requirement quantity for that particular acquisition action. This will provide the Inventory Manager with a clear view of how the system arrived at the indicated quantity. The actual elements displayed on a detail screen will vary according to the type of item and the type of requirement generated.

The results of any action taken on the detail screen will be reflected on the summary screen when the Inventory Manager returns to it. **D** on the far right side of the screen indicates that record has been "Discarded," while **P** indicates it has been "Processed."

When the user requests the detail screen, the process will also read the Master Inventory file using the NSN in the MRP Queue Requirement record.

If the NSN is on the Master Inventory file, the detail screen will be displayed with no message at the top.

If the NSN is not on the Master Inventory file, the process will check for a Delete/Transfer (D&T) record. If one is found, the process will display the detail screen with the following message:

NSN XXXX-XX-XXX-XXXX-X TRANSFERRED TO XXXX-XX-XXX-XXXX-X

The NSN on the detail screen will be changed to the new NSN, while the ORIG-NSN will still reflect the NSN on the original Requirement record.

CAUTION : The Inventory Manager needs to check the Master Inventory record before continuing with a D&T NSN because the process will build the record appropriate for the original MRP Queue PSC.

If the management method is different, the Inventory Manager may need to discard the current record or redirect it to the appropriate process.

If no record is found on the D&T file, the process will display the detail screen with the message:

NSN NOT ON RECORD, CANNOT BE PROCESSED

The only available input fields on this detail screen are:

REQMT QTY May be manually changed

ADVICE Advice-Status Code - Update allowed only if OPTION = 1
(NORMAL PROCESS {FED/MIL})

The options available from this detail screen and the processing edits and controls are:

OPTION <1> **NORMAL PROCESS** - Process in accordance with the type of record and the Procurement Source Code - format a stock buy record for the FEDSTRIP/MILSTRIP system to process. ADVICE is optional.

The process will consider the following before formatting the FEDSTRIP / MILSTRIP record:

- If NSN is not on the Master Inventory or Delete/Transfer file, this option will not be allowed.
- If the ORIG-NSN was a secondary and it has deleted and transferred, the process will continue normally with the new NSN from the Delete/ Transfer record.
- If the NSN is a secondary (Substitute and Interchangeability {S&I} Code = 3, A, C, Y), the S&I processing window will be presented (see separate section on "**Processing Window** for Secondary Items, (Pg. 121)).

OPTION <2> **DISCARD** - Update the Queue Status on the Requirement record to show it as discarded. Return the Inventory Manager to the summary screen or to the next detail record that was selected. If the return is to the summary screen, mark that line with a D (for "DISCARDED") and eliminate the selection space (record cannot be selected again).

OPTION <3> **RECOMPUTE REQUIREMENT** - Display the appropriate "RECOMPUTE" screen. See the separate section on "'Recompute' Options."

OPTION <4> **COMMERCIAL** - This option will allow the user to send a stock buy to the Automated Procurement System (APS) for an item that is normally acquired from a FEDSTRIP / MILSTRIP source.

The Inventory Manager will need to go into APS to complete the action on this record, and this can be done by using the FAST PATH option.

- OPTION <5> **VIEW MASTER** - Display "View Master" screen.
See separate section on "View Master" Option.
- OPTION <9> **MRP QUEUE MAIN MENU** - Returns the user to the **MRP QUEUE MAIN MENU** - **MRP230**, (Pg. 25).
- OPTION <20> **PRINT REQUIREMENT RECORD** - Prints report LGI233 (REQUIREMENTS - EXPENDABLE - FED/MIL), and returns user to the summary screen.
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on "**FAST PATH FEATURE**" (Pg. 222) for details).
- OPTION <99> **MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the **[ENTER]** Option field, and press **[ENTER]** to continue. When the FEDSTRIP / MILSTRIP processes collect the Requirement records for further processing, there will be an additional edit to ensure that no Inventory Category/Account Code changes have occurred to make the NSN a direct ship item (7.1, 7.2, 7.3, G.1, G.2, G.3), rather than a stocked item.

If the NSN is now direct ship, the stock buy record will be rejected and referred back to the Inventory Manager.

3.1.6 REQUIREMENTS - EXPENDABLE - SHOP FAB - MRP234

(Queue Status = M2; Inventory Category not 6, F, or 9; Procurement Source Code (PSC) = ALF)

3.1.6A REQUIREMENTS - EXPENDABLE - SHOP FAB (SUMMARY SCREEN)

08/31/92		LIS / MATERIAL REQUIREMENTS PLANNING							MRP234		
** REQUIREMENTS - EXPENDABLE - SHOP FABRICATION **											

		ACTION							PROCESS		
<u>*</u>	<u>NSN</u>					<u>IND</u>	<u>DESCRIPTION</u>	<u>UI</u>	<u>ROMT QTY</u>	<u>AVG W/P</u>	<u>DATE</u>
_	5840	01	112	7628	Y	CCA 669255-1	EA	55	95.00	08/22/92	
RSN: ACQUISITION RECORD											
_	5920	01	289	4834	N	SRGE ARR	EA	100	11.00	08/22/92	
RSN: ACQUISITION RECORD											
_	5920	01	289	4834	N	SRGE ARR	EA	65	11.00	08/22/92	
RSN: ACQUISITION RECORD											
_	5962	01	311	1706	N	MC DIG EPROMS	EA	8	7.00	08/22/92	
RSN: ACQUISITION RECORD											
_	5962	01	311	1706	N	MC DIG EPROMS	EA	25	7.00	08/22/92	
RSN: ACQUISITION RECORD											
_	5970	01	151	5117	N	INS 821548-1	EA	14	12.00	08/22/92	
RSN: ACQUISITION RECORD											
										** MORE **	
* = 'D' FOR DISCARD, 'X' FOR DETAIL AND PRESS ENTER TO CONTINUE											
OR ENTER OPTION: _ 1 - REPEAT DISPLAY FROM TOP 29 - SELECT FAST PATH EXIT											
9 - MRP QUEUE MAIN MENU 99 - MRP MAIN MENU											

FIGURE 12

**MRP QUEUE MANAGEMENT - REQUIREMENTS
EXPENDABLE - SHOP FABRICATION (SUMMARY)**

This screen displays multiple Requirement records that meet the "Expendable - Shop Fab" criteria when OPTION <4> is selected from the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 22).

The information displayed consists of the NSN, ACTION - IND, DESCRIPTION, UI, RQMT QTY, AVG W / P, and PROCESS DATE when the record was created on the MRP Queue. The RSN will be on the second line. The records are displayed in NSN sequence.

NOTE : This selection screen will not display if there is only one transaction available for processing. Only the detail screen (**MRP234A**, (Pg. 60)) will be displayed.

Up to six Requirement records will be displayed on each summary screen. One or more (or all) records can be selected for viewing in detail and possible additional action by inputting <X> in the field preceding the NSN.

If **** MORE **** is displayed in the bottom right corner of the screen, it indicates that there are more records available. These can be seen by continuing to press **[ENTER]**. When **** END **** is displayed in the bottom right corner, the last record has been presented. Press **[ENTER]** and the user will be returned to the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 22).

The user may also elect to discard one or more Requirement records from the summary screen by inputting <D> in the same selection field as shown before. The process will change the ACTION-IND to **Y**, place the letter **D** at the end of the second line, and remove the selection space so the record cannot be selected again.

NOTE : The user should exercise care and judgment before discarding records that have not been reviewed in detail.

The ACTION-IND will also be automatically changed to **Y** (Yes) by the system if the user proceeds to the detail screen and then presses **[ENTER]** to return to the summary screen. This will indicate the record has been reviewed at the detail level. The ACTION-IND will not be updated if the user elects to utilize one of the "exit" options detailed below from the detail screen. There is no manual update capability for the element ACTION - IND. Other available OPTIONS are:

- OPTION <1> **REPEAT DISPLAY FROM TOP** - Returns the user to the first record on the first screen.
- OPTION <19> **MRP QUEUE MAIN MENU** - Returns the user to the MRP QUEUE MAIN MENU - **MRP230**, (Pg. 22).
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on "**FAST PATH FEATURE**" (Pg. 222) for details.
- OPTION <99> **MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU - MRP200**, (Pg. 18)

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

3.1.6B REQUIREMENTS - EXPENDABLE - SHOP FAB (DETAIL SCREEN)

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING		MRP234A
** REQUIREMENTS - EXPENDABLE - SHOP FABRICATION **			

PROCESS DATE: 08/27/92	IM: 92	PROCESS TIME: 12:46:58	
RSN: ACQUISITION RECORD			
NSN : 5840 01 112 7628	DESC: CCA 669255-1	APP-TO: ASR7	
ORIG NSN : 5840 01 112 7628	S&I : B	C/A: 43	BORR :
AVG W/P : 95.00	SH/LIFE:	PSC: ALF	LOAN :
LATE PROC: 95.00	QUP CD : 1	PLT: 10	BIN :
TYPE UP : 5	QUP TYP: 3	EOQ: 1	RTV :
REQMT QTY: 55	U/I: EA	SURVEY:	
REQMT CST: 5225.00			
SERV :	F/D : 25	DIA :	
	ADDL DMD:	D/O : 12	
	SAFE STK: 1	RESERVED:	

1 - NORMAL PROCESS	5 - VIEW MASTER	9 - MRP QUEUE MAIN MENU	
2 - DISCARD		20 - PRINT REQUIREMENT RECORD	
3 - RECOMPUTE REQMT		29 - SELECT FAST PATH EXIT	
		99 - MRP MAIN MENU	
PRESS ENTER TO CONTINUE OR ENTER OPTION: ____			

FIGURE 13

MRP QUEUE MANAGEMENT - REQUIREMENTS
EXPENDABLE ACQUISITION - SHOP FABRICATION (DETAIL)

Shop Fabrication records are in this process for information purposes only.

Until the Production Control (Depot Support) system is converted and linked to the rest of LIS, there are no automated processes available for handling requests for fabrication in the shops.

When an Inventory Manager selects a record for detail review, a detail screen will be presented that shows the key information used to determine the requirement quantity for that particular acquisition action. This will provide the Inventory Manager with a clear view of how the system arrived at the indicated quantity. The actual elements displayed on a detail screen will vary according to the type of item and the type of requirement generated.

The results of any action taken on the detail screen will be reflected on the summary screen when the Inventory Manager returns to it. **D** on the far right side of the screen indicates that record has been "Discarded," while **P** indicates it has been "Processed." (**P** does not apply to "Shop Fab" records.)

When the user requests the detail screen, the process will also read the Master Inventory file using the NSN in the MRP Queue Requirement record.

If the NSN is on the Master Inventory file, the detail screen will be displayed with no message at the top.

If the NSN is not on the Master Inventory file, the process will check for a Delete/Transfer (D&T) record. If one is found, the process will display the detail screen with the following message:

NSN XXXX-XX-XXX-XXXX-X TRANSFERRED TO XXXX-XX-XXX-XXXX-X

The NSN on the detail screen will be changed to the new NSN, while the ORIG-NSN will still reflect the NSN on the original Requirement record.

CAUTION : The Inventory Manager needs to check the Master Inventory record before continuing with a D&T NSN because the process will build the record appropriate for the original MRP Queue PSC. If the management method is different, the Inventory Manager may need to discard the current record or redirect it to the appropriate process.

If no record is found on the D&T file, the process will display the detail screen with the message:

NSN NOT ON RECORD, CANNOT BE PROCESSED

There are no input fields available on this detail screen.

The options available from this detail screen and the processing edits and controls are:

OPTION <1> **NORMAL PROCESS** - Until conversion of the Production Control system and linking with LIS, this option will provide the following error message:

NO AUTOMATED PROCESS AVAILABLE AT THIS TIME

The process will remain on the detail Requirement record, so the user has the option to select the discard or one of the exit options.

- OPTION <2> **DISCARD** - Update the Queue Status on the Requirement record to show it as discarded. Return the Inventory Manager to the summary screen or to the next detail record that was selected. If the return is to the summary screen, mark that line with a D (for "DISCARDED") and eliminate the selection space (record cannot be selected again).
- OPTION <3> **RECOMPUTE REQUIREMENT** - Display the appropriate "RECOMPUTE" screen.
- See the separate section on "'Recompute' Options."
- OPTION <5> **VIEW MASTER** - Display "View Master" screen.
- See separate section on "View Master" Option.
- OPTION <9> **MRP QUEUE MAIN MENU** - Returns the user to the **MRP QUEUE MAIN MENU** - **MRP230**, (Pg. 22).
- OPTION <20> **PRINT REQUIREMENT RECORD** - Prints report LGI234 (REQUIREMENTS - EXPENDABLE - SHOP FAB), and returns user to the summary screen.

OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on “**FAST PATH FEATURE**” (Pg. 222) for details.

OPTION <99> **MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

3.1.7 REQUIREMENTS - EXPENDABLE - PRINTING (FORMS/INSTRUCTION BOOKS)

(Queue Status = M2; Inventory Category not 6, F, or 9; Federal Supply Class (FSC) 0052 or 0056, or FSC 7530/7540/7610 with Procurement Source Code (PSC) = APS, WPS)

3.1.7A REQUIREMENTS - EXPENDABLE - PRINTING (FORMS/ INSTRUCTION BOOKS) (SUMMARY SCREEN)

08/31/92		LIS / MATERIAL REQUIREMENTS PLANNING							MRP235	
** REQUIREMENTS - EXPENDABLE - PRINTING **										

		ACTION							PROCESS	
*	NSN	IND	DESCRIPTION	UI	QMT	QTY	AVG	W/P	DATE	
_	0052 00 024 5002	Y	FAA7230-4	SH	555400		0.01		08/28/92	
RSN: ACQUISITION RECORD										
_	0052 00 024 9004	N	FAA8130-1	SH	20200		0.01		08/28/92	
RSN: ACQUISITION RECORD										
_	0052 00 025 0001	N	FAA8110-12	SH	3500		0.01		08/28/92	
RSN: ACQUISITION RECORD										
_	0052 00 025 7001	N	FAA8120-3	SH	800		0.01		08/28/92	
RSN: ACQUISITION RECORD										
_	0052 00 025 8001	N	FAA337 (12-88)	HD	16125		0.01		08/27/92	
RSN: ACQUISITION RECORD										
_	0052 00 025 8001	N	FAA337 (12-88)	HD	11890		0.01		08/28/92	
RSN: ACQUISITION RECORD										
** MORE **										
* = 'D' FOR DISCARD, 'X' FOR DETAIL AND PRESS ENTER TO CONTINUE										
OR ENTER OPTION: _ 1 - REPEAT DISPLAY FROM TOP 29 - SELECT FAST PATH EXIT										
9 - MRP QUEUE MAIN MENU 99 - MRP MAIN MENU										

FIGURE 14
MRP QUEUE MANAGEMENT - REQUIREMENTS
EXPENDABLE - PRINTING (SUMMARY)

This screen displays multiple Requirement records that meet the "Expendable - Printing (Forms/Instruction Books)" criteria when OPTION <5> is selected from the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 22).

The information displayed consists of the NSN, ACTION-IND, DESCRIPTION, UI, RQMT QTY, AVG W/P, and PROCESS DATE when the record was created on the MRP Queue. The RSN will be on the second line. The records are displayed in NSN sequence.

NOTE : This selection screen will not display if there is only one transaction available for processing. Only the detail screen (**MRP235A**, (Pg. 68)) will be displayed.

Up to six Requirement records will be displayed on each summary screen. One or more (or all) records can be selected for viewing in detail and possible additional action by inputting <X> in the field preceding the NSN.

If **** MORE **** is displayed in the bottom right corner of the screen, it indicates that there are more records available. These can be seen by continuing to press **[ENTER]**. When **** END **** is displayed in the bottom right corner, the last record has been presented. Press **[ENTER]** and the user will be returned to the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 22). The user may also elect to discard one or more Requirement records from the summary screen by inputting <D> in the same selection field as shown before. The process will change the ACTION-IND to Y, place the letter **D** at the end of the second line, and remove the selection space so the record cannot be selected again.

NOTE : The user should exercise care and judgment before discarding records that have not been reviewed in detail.

The ACTION-IND will also be automatically changed to **Y** (Yes) by the system if the user proceeds to the detail screen and then presses **[ENTER]** to return to the summary screen. This will indicate the record has been reviewed at the detail level. The ACTION-IND will not be updated if the user elects to utilize one of the "exit" options detailed below from the detail screen. There is no manual update capability for the element ACTION-IND. Other available OPTIONS are:

- OPTION <1> **REPEAT DISPLAY FROM TOP** - Returns the user to the first record on the first screen.
- OPTION <19> **MRP QUEUE MAIN MENU** - Returns the user to the **MRP QUEUE MAIN MENU** - **MRP230**, (Pg. 247).
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on "**FAST PATH FEATURE**" (Pg. 222) for details.
- OPTION <99> **MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

3.1.7B REQUIREMENTS - EXPENDABLE - PRINTING (FORMS/ INSTRUCTION BOOKS) (DETAIL SCREEN) - MRP235A

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING	MRP235A
** REQUIREMENTS - EXPENDABLE - PRINTING **		

PROCESS DATE: 08/28/92	IM: 61	PROCESS TIME: 19:55:50
RSN: ACQUISITION RECORD		
NSN : 0052 00 024 5002	DESC: FAA7230-4	APP-TO: ADMIN
ORIG NSN : 0052 00 024 5002	S&I : B	C/A: 43 BORR :
AVG W/P : 0.01	SH/LIFE:	PSC: WPS LOAN :
LATE PROC:	QUP CD : Q	PLT: 7 BIN :
TYPE UP : 4	QUP TYP: 3	EOQ: 9 RTV :
SURVEY:		
REQMT QTY: 555400	U/I: SH	NOI: 1 IMPRESSIONS:555400
REQMT CST: 5554.00		
SERV : 271300	F/D : 495971	DIA :
	ADDL DMD:	D/O :
	SAFE STK: 41331	RESERVED:

1 - NORMAL PROCESS	5 - VIEW MASTER	9 - MRP QUEUE MAIN MENU
2 - DISCARD		20 - PRINT REQUIREMENT RECORD
3 - RECOMPUTE REQMT		29 - SELECT FAST PATH EXIT
		99 - MRP MAIN MENU
PRESS ENTER TO CONTINUE OR ENTER OPTION: ____		

FIGURE 15

**MRP QUEUE MANAGEMENT - REQUIREMENTS
EXPENDABLE ACQUISITION - PRINTING (DETAIL)**

Records for printing requirements are in this process for information purposes only. There are no automated processes available for handling printing requests.

When an Inventory Manager selects a record for detail review, a detail screen will be presented that shows the key information used to determine the requirement quantity for that particular acquisition action. This will provide the Inventory Manager with a clear view of how the system arrived at the indicated quantity. This screen is slightly different from other detail screens because it also shows the following elements:

NOI ==> Number of Impressions (per Unit of Issue, from MRP Parameters File)

IMPRESSIONS ==> Requirement Quantity times NOI

The results of any action taken on the detail screen will be reflected on the summary screen when the Inventory Manager returns to it. **D** on the far right side of the screen indicates that record has been "Discarded," while **P** indicates it has been "Processed." (**P** does not apply to "Printing" records.)

When the user requests the detail screen, the process will also read the Master Inventory file using the NSN in the MRP Queue Requirement record.

If the NSN is on the Master Inventory file, the detail screen will be displayed with no message at the top.

If the NSN is not on the Master Inventory file, the process will check for a Delete / Transfer (D&T) record. If one is found, the process will display the detail screen with the following message:

NSN XXXX-XX-XXX-XXXX-X TRANSFERRED TO XXXX-XX-XXX-XXXX-X

The NSN on the detail screen will be changed to the new NSN, while the ORIG-NSN will still reflect the NSN on the original Requirement record.

CAUTION : The Inventory Manager needs to check the Master Inventory record before continuing with a D&T NSN because the process will build the record appropriate for the original MRP Queue PSC. If the management method is different, the Inventory Manager may need to discard the current record or re-direct it to the appropriate process.

If no record is found on the D&T file, the process will display the detail screen with the message:

NSN NOT ON RECORD, CANNOT BE PROCESSED

There are no input fields available on this detail screen.

The options available from this detail screen and the processing edits and controls are:

OPTION <1> **NORMAL PROCESS** - This option will provide the following error message:

NO AUTOMATED PROCESS AVAILABLE AT THIS TIME

The process will remain on the detail Requirement record, so the user has the option to select the discard or one of the exit options.

OPTION <2> **DISCARD** - Update the Queue Status on the Requirement record to show it as discarded.

Return the Inventory Manager to the summary screen or to the next detail record that was selected. If the return is to the summary screen, mark that line with a D (for "DISCARDED") and eliminate the selection space (record cannot be selected again).

- OPTION <3> **RECOMPUTE REQUIREMENT** - Display the appropriate "RECOMPUTE" screen.
See the separate section on "'Recompute' Options."
- OPTION <5> **VIEW MASTER** - Display "View Master" screen.
See separate section on "View Master" Option.
- OPTION <9> **MRP QUEUE MAIN MENU** - Returns the user to the **MRP QUEUE MAIN MENU** - **MRP230**, (Pg. 22).
- OPTION <20> **PRINT REQUIREMENT RECORD** - Prints report LGI235 (REQUIREMENTS - EXPENDABLE - PRINTING), and returns user to the summary screen.
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on "**FAST PATH FEATURE**" (Pg. 222) for details.
- OPTION <99> **MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

3.1.8 REQUIREMENTS - E&R REPAIR - COMMERCIAL - MRP236

(Queue Status = M3; Repair Source Code (RSC) = 030)

3.1.8A REQUIREMENTS - E&R REPAIR - COMMERCIAL (SUMMARY SCREEN)

08/31/92		LIS / MATERIAL REQUIREMENTS PLANNING							MRP236	
** REQUIREMENTS - E&R REPAIR - COMMERCIAL **										

		ACTION				EST		PROCESS		
<u>*</u>	<u>NSN</u>	<u>IND</u>	<u>DESCRIPTION</u>	<u>UI</u>	<u>RQMT</u>	<u>QTY</u>	<u>RPR COST</u>	<u>DATE</u>		
_	5998 01 089 9315	N	CCA 951531-1	EA		1	1050.00	08/22/92		
RSN: REPAIR RECORD										
_	5998 01 090 2631	N	CCA 951551-1	EA		5	2000.00	08/29/92		
RSN: REPAIR RECORD										
_	5998 01 103 5087	N	CCA 11981	EA		2	175.00	08/22/92		
RSN: REPAIR RECORD										
_	5998 01 103 5087	N	CCA 11981	EA		2	175.00	08/29/92		
RSN: REPAIR RECORD										
_	5998 01 119 3926	N	CCA 930125G1	EA		19	1800.00	08/22/92		
RSN: REPAIR RECORD										
_	5998 01 119 3926	N	CCA 930125G1	EA		19	1800.00	08/29/92		
RSN: REPAIR RECORD										
** MORE **										
* = 'D' FOR DISCARD, 'X' FOR DETAIL AND PRESS ENTER TO CONTINUE										
OR ENTER OPTION: _ 1 - REPEAT DISPLAY FROM TOP 29 - SELECT FAST PATH EXIT										
9 - MRP QUEUE MAIN MENU 99 - MRP MAIN MENU										

FIGURE 16

**MRP QUEUE MANAGEMENT - REQUIREMENTS
E&R REPAIR - COMMERCIAL (SUMMARY)**

This screen displays multiple Requirement records that meet the "E&R Repair - Commercial" criteria when OPTION <6> is selected from the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 22).

The information displayed consists of the NSN, ACTION-IND, DESCRIPTION, UI, RQMT QTY, EST RPR COST, and PROCESS DATE when the record was created on the MRP Queue. The RSN will be on the second line. The records are displayed in NSN sequence.

NOTE : This selection screen will not display if there is only one transaction available for processing. Only the detail screen (**MRP236A**, (Pg. 76)) will be displayed.

Up to six Requirement records will be displayed on each summary screen. One or more (or all) records can be selected for viewing in detail and possible additional action by inputting <X> in the field preceding the NSN.

If **** MORE **** is displayed in the bottom right corner of the screen, it indicates that there are more records available. These can be seen by continuing to press **[ENTER]**. When **** END **** is displayed in the bottom right corner, the last record has been presented. Press **[ENTER]** and the user will be returned to the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 22). The user may also elect to discard one or more Requirement records from the summary screen by inputting <D> in the same selection field as shown before. The process will change the ACTION-IND to Y, place the letter **D** at the end of the second line, and remove the selection space so the record cannot be selected again.

NOTE : The user should exercise care and judgment before discarding records that have not been reviewed in detail.

A **P** at the end of the second line (with no selection space) indicates that the record was processed by the user at the detail screen level. The ACTION-IND will also have **Y** in it. Additionally, the ACTION-IND will be automatically changed to **Y** (Yes) by the system if the user proceeds to the detail screen and then presses **[ENTER]** to return to the summary screen. This will indicate the record has been reviewed at the detail level. The ACTION-IND will not be updated if the user elects to utilize one of the "exit" options detailed below from the detail screen. There is no manual update capability for the element ACTION-IND. Other available OPTIONS are:

- OPTION <1> **REPEAT DISPLAY FROM TOP** - Returns the user to the first record on the first screen.
- OPTION <19> **MRP QUEUE MAIN MENU** - Returns the user to the **MRP QUEUE MAIN MENU** - **MRP230**, (Pg. 22).
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on "**FAST PATH FEATURE**" (Pg. 222) for details.
- OPTION <99> **MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**., (Pg. 18).

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

3.1.8B REQUIREMENTS - E&R REPAIR - COMMERCIAL (SUMMARY SCREEN)

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING	MRP236A
** REQUIREMENTS - E&R REPAIR - COMMERCIAL **		

PROCESS DATE: 08/27/92	IM: 20	PROCESS TIME: 14:09:16
RSN: REPAIR RECORD		
NSN : 5998 01 089 9315	DESC: CCA 951531-1	APP-TO: DARC
ORIG NSN : 5998 01 089 9315	S&I : B	C/A: 62 BORR :
AVG W/P : 1000.00	SH/LIFE:	RSC: 030 LOAN :
LATE PROC:	QUP CD : 1	PLT: 12 BIN :
TYPE UP : 3	QUP TYP: 3	RLT: 6 RTV :
ESTREPCST: 1050.00	RESV:	I&R: 1 SURVEY:
REQMT QTY: 1_____	U/I: EA	TOTAL REPAIR QTY: 3
SERV :	F/D :	DIA :
REP : 1	ADDL DMD:	D/O :
DIF :	SAFE STK: 1	ACR :
DIS :	CDIS :	12MO ROT: 3

1 - NORMAL PROCESS	5 - VIEW MASTER	9 - MRP QUEUE MAIN MENU
2 - DISCARD		20 - PRINT REQUIREMENT RECORD
3 - RECOMPUTE REQMT		29 - SELECT FAST PATH EXIT
		99 - MRP MAIN MENU
PRESS ENTER TO CONTINUE OR ENTER OPTION: ____		

FIGURE 17
MRP QUEUE MANAGEMENT - REQUIREMENTS
E&R REPAIR - COMMERCIAL (DETAIL)

When an Inventory Manager selects a record for detail review, a detail screen will be presented that shows the key information used to determine the requirement quantity for that particular acquisition action. This will provide the Inventory Manager with a clear view of how the system arrived at the indicated quantity. On Requirement records for repairs, there will be an extra element called TOTAL REPAIR QTY, which will reflect the actual repair quantity computed before consideration was given to the number of available reparable items (not committed on repair procurement requests under Advance Commercial Repair). The quantity shown in REQMT QTY will never be greater than:

REPARABLE QTY - ADVANCE COMMERCIAL REPAIR

The results of any action taken on the detail screen will be reflected on the summary screen when the Inventory Manager returns to it. **D** on the far right side of the screen indicates that record has been "Discarded," while **P** indicates it has been "Processed".

When the user requests the detail screen, the process will also read the Master Inventory file using the NSN in the MRP Queue Requirement record. If the NSN is on the Master Inventory file, the detail screen will be displayed with no message at the top. If the NSN is not on the Master Inventory file, the process will check for a Delete/Transfer (D&T) record. If one is found, the process will display the detail screen with the following message:

NSN XXXX-XX-XXX-XXXX-X TRANSFERRED TO XXXX-XX-XXX-XXXX-X

The NSN on the detail screen will be changed to the new NSN, while the ORIG-NSN will still reflect the NSN on the original Requirement record.

CAUTION : The Inventory Manager needs to check the Master Inventory record before continuing with a D&T NSN because the process will build the record appropriate for the original MRP Queue PSC. If the management method is different, the Inventory Manager may need to discard the current record or redirect it to the appropriate process.

If no record is found on the D&T file, the process will display the detail screen with the message:

NSN NOT ON RECORD, CANNOT BE PROCESSED

The only available input fields on this detail screen are:

REQMT QTY May be manually changed

If the Inventory Manager has the need to have a "commercial" item repaired in the local shops (rather than the normal commercial contractor repair), he/she should delete the particular Requirement record from the MRP Queue and pursue the repair action manually (outside of the automated system). There is no automated process or link to the existing Depot Support/Production Control processes for local shop repair.

The options available from this detail screen and the processing edits and controls are:

OPTION <1> NORMAL PROCESS - Process in accordance with the type of record and the Repair Source Code - format an "E&R Commercial Repair" record for the Automated Procurement System (APS). The Inventory Manager will need to go into APS to complete the action on this record, and this can be done by using the FAST PATH option.

The process will consider the following before formatting the APS record:

- If NSN is not on the Master Inventory or Delete/Transfer file, this option will not be allowed.

OPTION <2> DISCARD - Update the Queue Status on the Requirement record to show it as discarded. Return the Inventory Manager to the summary screen or to the next detail record that was selected. If the return is to the summary screen, mark that line with a D (for "DISCARDED") and eliminate the selection space (record cannot be selected again).

OPTION <3> RECOMPUTE REQUIREMENT - Display the appropriate "RECOMPUTE" screen.

See the separate section on " `Recompute' Options."

- OPTION <5> **VIEW MASTER** - Display "View Master" screen.
See separate section on "View Master" Option.
- OPTION <9> **MRP QUEUE MAIN MENU** - Returns the user to the **MRP QUEUE MAIN MENU** - **MRP230**, (Pg. 22).
- OPTION <20> **PRINT REQUIREMENT RECORD** - Prints report LGL236 (REQUIREMENTS - E&R REPAIR - COMMERCIAL), and returns user to the summary screen.
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on "**FAST PATH FEATURE**" (Pg. 222) for details.
- OPTION <99> **MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

3.1.9 REQUIREMENTS - E&R REPAIR - LOCAL SHOPS/AVN - MRP237

(Queue Status = M3; Repair Source Code (RSC) not 030)

3.1.9A REQUIREMENTS - E&R REPAIR - LOCAL SHOPS/AVN (SUMMARY SCREEN)

08/31/92		LIS / MATERIAL REQUIREMENTS PLANNING							MRP237	
** REQUIREMENTS - E&R REPAIR - LOCAL SHOPS/AVN **										

		ACTION				EST		PROCESS		
<u>*</u>	<u>NSN</u>	<u>IND</u>	<u>DESCRIPTION</u>	<u>UI</u>	<u>RQMT</u>	<u>QTY</u>	<u>RPR</u>	<u>COST</u>	<u>DATE</u>	
_	6130 01 112 1670	N	PS SPS2228	EA		9			08/29/92	
RSN: REPAIR RECORD										
_	7025 01 102 0591	N	PRT 4320AAK	EA		6			08/29/92	
RSN: REPAIR RECORD										
_	7025 01 138 8599	N	KYB 1050455	EA		2			08/22/92	
RSN: REPAIR RECORD										
** END **										
* = 'D' FOR DISCARD, 'X' FOR DETAIL AND PRESS ENTER TO CONTINUE										
OR ENTER OPTION: 1 - REPEAT DISPLAY FROM TOP 29 - SELECT FAST PATH EXIT										
9 - MRP QUEUE MAIN MENU 99 - MRP MAIN MENU										

FIGURE 18
MRP QUEUE MANAGEMENT - REQUIREMENTS
E&R REPAIR - LOCAL SHOP/AVN (SUMMARY)

This screen displays multiple Requirement records that meet the "E&R Repair - Local Shops/AVN" criteria when OPTION <7> is selected from the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 22).

The information displayed consists of the NSN, ACTION-IND, DESCRIPTION, UI, RQMT QTY, EST RPR COST, and PROCESS DATE when the record was created on the MRP Queue. The RSN will be on the second line. The records are displayed in NSN sequence.

NOTE : This selection screen will not display if there is only one transaction available for processing. Only the detail screen (**MRP237A**, (Pg. 84)) will be displayed.

Up to six Requirement records will be displayed on each summary screen. One or more (or all) records can be selected for viewing in detail and possible additional action by inputting <X> in the field preceding the NSN.

If **** MORE **** is displayed in the bottom right corner of the screen, it indicates that there are more records available. These can be seen by continuing to press **[ENTER]**. When **** END **** is displayed in the bottom right corner, the last record has been presented. Press **[ENTER]** and the user will be returned to the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 22).

The user may also elect to discard one or more Requirement records from the summary screen by inputting <D> in the same selection field as shown before.

The process will change the ACTION-IND to **Y**, place the letter **D** at the end of the second line, and remove the selection space so the record cannot be selected again.

NOTE : The user should exercise care and judgment before discarding records that have not been reviewed in detail.

A **P** at the end of the second line (with no selection space) indicates that the record was processed by the user at the detail screen level. The ACTION-IND will also have **Y** in it.

Additionally, the ACTION-IND will be automatically changed to **Y** (Yes) by the system if the user proceeds to the detail screen and then presses **[ENTER]** to return to the summary screen. This will indicate the record has been reviewed at the detail level. The ACTION-IND will not be updated if the user elects to utilize one of the "exit" options detailed below from the detail screen. There is no manual update capability for the element ACTION-IND.

Other available OPTIONS are:

- OPTION <1> **REPEAT DISPLAY FROM TOP** - Returns the user to the first record on the first screen.
- OPTION <19> **MRP QUEUE MAIN MENU** - Returns the user to the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 22).
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on "**FAST PATH FEATURE**" (Pg. 222) for details.
- OPTION <99> **MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU - MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

3.1.9B REQUIREMENTS - E&R REPAIR - LOCAL SHOPS/AVN (DETAIL SCREEN)

09/22/92	LIS / MATERIAL REQUIREMENTS PLANNING		MRP237A
** REQUIREMENTS - E&R REPAIR - LOCAL SHOPS/AVN **			

PROCESS DATE: 08/29/92	IM: 20	PROCESS TIME: 06:36:12	
RSN: REPAIR RECORD			
NSN : 6130 01 112 1670	DESC: PS SPS2228	APP-TO: DARC	
ORIG NSN : 6130 01 112 1670	S&I : B	C/A: 63	BORR :
AVG W/P : 802.00	SH/LIFE:	RSC: 331	LOAN :
LATE PROC:	QUP CD : 1	PLT: 12	BIN :
TYPE UP : 1	QUP TYP: 3	RLT: 2	RTV :
ESTREPCST:	RESV:	I&R:	SURVEY:
REQMT QTY: 9 _____	U/I: EA	TOTAL REPAIR QTY: 9	
SERV : 1	F/D :	DIA :	
REP : 19	ADDL DMD:	D/O : 1	
DIF : 2	SAFE STK: 2	ACR :	
DIS :	CDIS :	12MO ROT: 15	

1 - NORMAL PROCESS	5 - VIEW MASTER	9 - MRP QUEUE MAIN MENU	
2 - DISCARD		20 - PRINT REQUIREMENT RECORD	
3 - RECOMPUTE REQMT		29 - SELECT FAST PATH EXIT	
4 - COMMERCIAL		99 - MRP MAIN MENU	
PRESS ENTER TO CONTINUE OR ENTER OPTION: ____			

FIGURE 19

MRP QUEUE MANAGEMENT - REQUIREMENTS
E&R REPAIR - LOCAL SHOPS/AVN (DETAIL)

Local Shop/AVN Repair Requirement records are in this process for information purposes only.

Until the Production Control (Depot Support) system is converted and linked to the rest of LIS, there are no automated processes available for handling Local Shop Repair requests. In addition, there are no plans for conversion/linking of AVN's production control with LIS anytime in the near future. One option that will be available to the Inventory Manager is to send the Local Shop/AVN repair request to a commercial process as an alternative source.

When an Inventory Manager selects a record for detail review, a detail screen will be presented that shows the key information used to determine the requirement quantity for that particular acquisition action. This will provide the Inventory Manager with a clear view of how the system arrived at the indicated quantity. On Requirement records for repairs, there will be an extra element called TOTAL REPAIR QTY, which will reflect the actual repair quantity computed before consideration was given to the number of available repairable items (not committed on repair procurement requests under Advance Commercial Repair). The quantity shown in REQMT QTY will never be greater than:

REPARABLE QTY - ADVANCE COMMERCIAL REPAIR

The results of any action taken on the detail screen will be reflected on the summary screen when the Inventory Manager returns to it.

A **D** on the far right side of the screen indicates that record has been "Discarded," while **P** indicates it has been "Processed." When the user requests the detail screen, the process will also read the Master Inventory file using the NSN in the MRP Queue Requirement record.

If the NSN is on the Master Inventory file, the detail screen will be displayed with no message at the top. If the NSN is not on the Master Inventory file, the process will check for a Delete/Transfer (D&T) record. If one is found, the process will display the detail screen with the following message:

NSN XXXX-XX-XXX-XXXX-X TRANSFERRED TO XXXX-XX-XXX-XXXX-X

The NSN on the detail screen will be changed to the new NSN, while the ORIG-NSN will still reflect the NSN on the original Requirement record.

CAUTION : The Inventory Manager needs to check the Master Inventory record before continuing with a D&T NSN because the process will build the record appropriate for the original MRP Queue PSC. If the management method is different, the Inventory Manager may need to discard the current record or re-direct it to the appropriate process.

If no record is found on the D&T file, the process will display the detail screen with the message:

NSN NOT ON RECORD, CANNOT BE PROCESSED

The only available input fields on this detail screen are:

REQMT QTY ==> May be manually changed

If the Inventory Manager has the need to have a "commercial" item repaired in the local shops (rather than the normal commercial contractor repair), he/she should delete the particular Requirement record from the MRP Queue and pursue the repair action manually (outside of the automated system).

There is no automated process or link to the existing Depot Support/Production Control processes for local shop repair. The options available from this detail screen and the processing edits and controls are:

- OPTION <1> **NORMAL PROCESS** - Until conversion of the Production Control system and linking with LIS (and for all AVN Repair Source Codes), this option will provide the following error message:
 NO AUTOMATED PROCESS AVAILABLE AT THIS TIME
The process will remain on the detail Requirement record, so the user has the option to select the discard, select one of the exit options, or send the item for commercial repair.
- OPTION <2> **DISCARD** - Update the Queue Status on the Requirement record to show it as discarded. Return the Inventory Manager to the summary screen or to the next detail record that was selected. If the return is to the summary screen, mark that line with a **D** (for "DISCARDED") and eliminate the selection space (record cannot be selected again).
- OPTION <3> **RECOMPUTE REQUIREMENT** - Display the appropriate "RECOMPUTE" screen. See the separate section on "Recompute' Options."
- OPTION <4> **COMMERCIAL** - This option will allow the user to send a repair requirement to the Automated Procurement System (APS) for an item that is normally repaired in the local shops or by AVN.

The Inventory Manager will need to go into APS to complete the action on this record, and this can be done by using the FAST PATH option.

- OPTION <5> **VIEW MASTER** - Display "View Master" screen.
See separate section on "View Master" Option.
- OPTION <9> **MRP QUEUE MAIN MENU** - Returns the user to the **MRP QUEUE MAIN MENU** - **MRP230**, (Pg. 22).
- OPTION <20> **PRINT REQUIREMENT RECORD** - Prints report LGL237 (REQUIREMENTS - E&R REPAIR - LOCAL SHOPS/AVN), and returns user to the summary screen.
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on "**FAST PATH FEATURE**" (Pg. 222) for details.
- OPTION <99> **MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

3.1.10 REQUIREMENTS - E&R ACQUISITION - MRP238

(Queue Status = M2, Inventory Category 6 or F)

3.1.10A REQUIREMENTS - E&R ACQUISITION (SUMMARY SCREEN) -MRP238

08/31/92		LIS / MATERIAL REQUIREMENTS PLANNING							MRP238		
** REQUIREMENTS - E&R ACQUISITION **											

					ACTION				PROCESS		
<u>*</u>	<u>NSN</u>				<u>IND</u>	<u>DESCRIPTION</u>	<u>UI</u>	<u>RQMT</u>	<u>QTY</u>	<u>AVG W/P</u>	<u>DATE</u>
_	5998	01	307	7888	N	CCA 507862-4	EA		4	4564.00	08/27/92
RSN: ACQN RCD - CHECK OTHER QUANTITIES (BORR/LOAN/BIN INSP/RECYCLE/SURVEY)											
_	5998	01	313	5101	N	CCA M68KVM01A1	EA		1	2000.00	08/27/92
RSN: ACQUISITION RECORD											
_	5998	01	338	9837	N	CCA	EA		17	3960.00	08/27/92
RSN: ACQUISITION RECORD											
_	5998	01	339	4431	N	CCA	EA		34	4046.00	08/27/92
RSN: ACQUISITION RECORD											
_	7025	01	179	0666	N	DISC DRV 594008-1	EA		11	5475.00	08/27/92
RSN: ACQUISITION RECORD											
_	7025	01	179	0668	N	DISC DR 547312-001	EA		2	2300.00	08/27/92
RSN: ACQUISITION RECORD											
** MORE **											
* = 'D' FOR DISCARD, 'X' FOR DETAIL AND PRESS ENTER TO CONTINUE											
OR ENTER OPTION: 1 - REPEAT DISPLAY FROM TOP 29 - SELECT FAST PATH EXIT											
9 - MRP QUEUE MAIN MENU 99 - MRP MAIN MENU											

FIGURE 20
MRP QUEUE MANAGEMENT - REQUIREMENTS
E&R ACQUISITION (SUMMARY)

This screen displays multiple Requirement records that meet the "E&R Acquisition" criteria when OPTION <8> is selected from the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 22). The information displayed consists of the NSN, ACTION-IND, DESCRIPTION, UI, RQMT QTY, AVG W/P, and PROCESS DATE when the record was created on the MRP Queue. The RSN will be on the second line. The records are displayed in NSN sequence.

NOTE : This selection screen will not display if there is only one transaction available for processing. Only the detail screen (**MRP238A**, (Pg. 92)) will be displayed.

Up to six Requirement records will be displayed on each summary screen. One or more (or all) records can be selected for viewing in detail and possible additional action by inputting <X> in the field preceding the NSN.

If **** MORE **** is displayed in the bottom right corner of the screen, it indicates that there are more records available. These can be seen by continuing to press **[ENTER]**. When **** END **** is displayed in the bottom right corner, the last record has been presented. Press **[ENTER]** and the user will be returned to the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 22). The user may also elect to discard one or more Requirement records from the summary screen by inputting <D> in the same selection field as shown before. The process will change the ACTION-IND to Y, place the letter **D** at the end of the second line, and remove the selection space so the record cannot be selected again.

NOTE : The user should exercise care and judgment before discarding records that have not been reviewed in detail.

A **P** at the end of the second line (with no selection space) indicates that the record was processed by the user at the detail screen level. The ACTION-IND will also have **Y** in it.

Additionally, the ACTION-IND will be automatically changed to **Y** (Yes) by the system if the user proceeds to the detail screen and then presses **[ENTER]** to return to the summary screen. This will indicate the record has been reviewed at the detail level. The ACTION-IND will not be updated if the user elects to utilize one of the "exit" options detailed below from the detail screen.

There is no manual update capability for the element ACTION-IND.

Other available OPTIONS are:

- OPTION <1> **REPEAT DISPLAY FROM TOP** - Returns the user to the first record on the first screen.
- OPTION <19> **MRP QUEUE MAIN MENU** - Returns the user to the **MRP QUEUE MAIN MENU** - **MRP230**, (Pg. 22).
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on "**FAST PATH FEATURE**" (Pg. 222) for details.
- OPTION <99> **MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

3.1.10B REQUIREMENTS - E&R ACQUISITION (DETAIL SCREEN) -MRP238A

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING	MRP238A
** REQUIREMENTS - E&R ACQUISITION **		

PROCESS DATE: 08/27/92	IM: 20	PROCESS TIME: 14:09:16
RSN: ACQN RCD - CHECK OTHER QUANTITIES (BORR/LOAN/BIN INSP/RECYCLE/SURVEY)		
NSN : 5998 01 307 7888	DESC: CCA 507862-4	APP-TO: CD2A
ORIG NSN : 5998 01 307 7888	S&I : B	C/A: 63 BORR : 3
AVG W/P : 4564.00	SH/LIFE:	PSC: ANP LOAN :
LATE PROC:	QUP CD : 1	PLT: 12 BIN :
TYPE UP : 1	QUP TYP: 3	RLT: 6 RTV :
ESTREPCST: 2215.00	RESV:	I&R: 1 SURVEY:
REQMT QTY: 4_____	U/I: EA	ACQ : 1
SERV : 4	F/D :	DIA :
REP : 3	ADDL DMD:	D/O :
DIF : 3	SAFE STK: 1	ACR :
DIS : 1	CDIS :	12MO ROT: 25

1 - NORMAL PROCESS	5 - VIEW MASTER	9 - MRP QUEUE MAIN MENU
2 - DISCARD		20 - PRINT REQUIREMENT RECORD
3 - RECOMPUTE REQMT		29 - SELECT FAST PATH EXIT
		99 - MRP MAIN MENU
PRESS ENTER TO CONTINUE OR ENTER OPTION: ____		

FIGURE 21
MRP QUEUE MANAGEMENT - REQUIREMENTS
E&R ACQUISITION (DETAIL)

When an Inventory Manager selects a record for detail review, a detail screen will be presented that shows the key information used to determine the requirement quantity for that particular acquisition action.

This will provide the Inventory Manager with a clear view of how the system arrived at the indicated quantity.

The results of any action taken on the detail screen will be reflected on the summary screen when the Inventory Manager returns to it. **D** on the far right side of the screen indicates that record has been "Discarded," while **P** indicates it has been "Processed."

When the user requests the detail screen, the process will also read the Master Inventory file using the NSN in the MRP Queue Requirement record.

If the NSN is on the Master Inventory file, the detail screen will be displayed with no message at the top.

If the NSN is not on the Master Inventory file, the process will check for a Delete/Transfer (D&T) record. If one is found, the process will display the detail screen with the following message:

NSN XXXX-XX-XXX-XXXX-X TRANSFERRED TO XXXX-XX-XXX-XXXX-X

The NSN on the detail screen will be changed to the new NSN, while the ORIG-NSN will still reflect the NSN on the original Requirement record.

CAUTION : The Inventory Manager needs to check the Master Inventory record before continuing with a D&T NSN because the process will build the record appropriate for the original MRP Queue PSC.

If the management method is different, the Inventory Manager may need to discard the current record or re-direct it to the appropriate process.

If no record is found on the D&T file, the process will display the detail screen with the message:

NSN NOT ON RECORD, CANNOT BE PROCESSED

The only available input fields on this detail screen are:

REQMT QTY => May be manually changed

If the Inventory Manager has the need to have a "commercial" item repaired in the local shops (rather than the normal commercial contractor repair), he/she should delete the particular Requirement record from the MRP Queue and pursue the repair action manually (outside of the automated system). There is no automated process or link to the existing Depot Support/Production Control processes for local shop repair.

The options available from this detail screen and the processing edits and controls are:

OPTION <1> **NORMAL PROCESS** - The process will look at the Procurement Source Code and determine whether it returns an informational message or writes a Trans-Queue record for either the Automated Procurement System (APS) or for FEDSTRIP/MILSTRIP.

If the source is local shop fabrication (ALF), the process will return a message:

NO AUTOMATED PROCESS AVAILABLE AT THIS TIME

The Inventory Manager will need to discard the record to remove it from his/her MRP Queue. (At some future point when the Production Control area is automated and tied into LIS, a subsequent feed of the Requirement record to that area will be permitted.)

If the source is commercial procurement, the process will write a record to the Automated Procurement System (APS) and provide an appropriate message. The Inventory Manager will need to go into APS to complete the action on this record. This can be done by using the FAST PATH option.

If the source is FEDSTRIP/MILSTRIP, a record will be written to FEDSTRIP/MILSTRIP and an appropriate message returned to the screen. (No further Inventory Manager action will be needed).

The process will consider the following before formatting any records:

- If NSN is not on the Master Inventory or Delete/Transfer file, this option will not be allowed.

- If the NSN has deleted and transferred, the process will continue with the "new" NSN from the D&T record.

- OPTION <2> **DISCARD** - Update the Queue Status on the Requirement record to show it as discarded. Return the Inventory Manager to the summary screen or to the next detail record that was selected. If the return is to the summary screen, mark that line with a **D** (for "DISCARDED") and eliminate the selection space (record cannot be selected again).
- OPTION <3> **RECOMPUTE REQUIREMENT** - Display the appropriate "RECOMPUTE" screen. See the separate section on "Recompute' Options."
- OPTION <5> **VIEW MASTER** - Display "View Master" screen.
See separate section on "View Master" Option.
- OPTION <9> **MRP QUEUE MAIN MENU** - Returns the user to the **MRP QUEUE MAIN MENU** - **MRP230**, (Pg. 22).
- OPTION <20> **PRINT REQUIREMENT RECORD** - Prints report LGI238 (REQUIREMENTS - E&R ACQUISITION), and returns user to the summary screen.
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on "**FAST PATH FEATURE**" (Pg. 222) for details.

OPTION <99> **MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU - MRP200**, (Pg. 18).

Select the option desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

3.1.11 REQUIREMENTS - FED / MIL STOCK BUY STATUS - MRP239 (QUEUE STATUS = M4)

3.1.11A REQUIREMENTS - FED / MIL STOCK BUY STATUS (SUMMARY SCREEN)

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING							MRP239
** REQUIREMENTS - FED / MIL STOCK BUY STATUS **								

	ACTION							PROCESS
<u>*</u>	<u>NSN</u>	<u>IND</u>	<u>DESCRIPTION</u>	<u>UI</u>	<u>QUANTITY</u>	<u>AVG W/P</u>	<u>DATE</u>	
_	1560 00 326 4450	Y		EA	5	1.36	08/04/92	
RSN: QUANTITY APPEARS EXCESSIVE - PARTIAL QUANTITY SUPPLIED								
_	5961 00 324 3083	Y		EA	5	4.43	09/01/92	
RSN: BACK ORDERED - ESTIMATED AVAILABILITY DATE:								
_	5961 00 324 3083	N		EA	2	4.43	09/01/92	
RSN: REJECTED - CK STATUS								
** END **								
* = 'D' FOR DISCARD, 'X' FOR DETAIL AND PRESS ENTER TO CONTINUE								
OR ENTER OPTION: 1 - REPEAT DISPLAY FROM TOP 29 - SELECT FAST PATH EXIT								
9 - MRP QUEUE MAIN MENU 99 - MRP MAIN MENU								

FIGURE 22
MRP QUEUE MANAGEMENT - REQUIREMENTS
FED / MIL STOCK BUY STATUS (SUMMARY)

The FEDSTRIP/MILSTRIP processes will be returning status information on stock buy transactions. In some cases, the source is canceling our request but may be offering an alternative. In other cases, the record is not an actual cancellation but provides additional information for possible action.

Those statuses that we believe may require additional Inventory Manager action will be put into the MRP Queue for Inventory Manager review and, as needed, further action. The Inventory Manager will have to carefully review the "FED / MIL Stock Buy Status" record and its Reason Code to determine the information that is being conveyed and the proper course of action.

This screen displays multiple Requirement records that meet the "FED / MIL Stock Buy Status" criteria when OPTION <9> is selected from the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 22). The records meeting this criteria encompass all supply status records returned from the supply source that apply to stock buy records; it is not just canceled records.

The information displayed on the summary screen consists of the NSN, ACTION-IND, DESCRIPTION, UI, RQMT QTY, AVG W/P, and PROCESS DATE when the record was created on the MRP Queue. The RSN will be on the second line. The records are displayed in NSN sequence.

NOTE : This selection screen will not display if there is only one transaction available for processing. Only the detail screen (**MRP239A**, (Pg. 101)) will be displayed.

Up to six "...Status" records will be displayed on each summary screen. One or more (or all) records can be selected for viewing in detail and possible additional action by inputting <X> in the field preceding the NSN.

If **** MORE **** is displayed in the bottom right corner of the screen, it indicates that there are more records available. These can be seen by continuing to press **[ENTER]**. When **** END **** is displayed in the bottom right corner, the last record has been presented. Press **[ENTER]** and the user will be returned to the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 22).

The user may also elect to discard one or more Requirement records from the summary screen by inputting <D> in the same selection field as shown before. The process will change the ACTION-IND to **Y**, place the letter **D** at the end of the second line, and remove the selection space so the record cannot be selected again.

NOTE : The user should exercise care and judgment before discarding records that have not been reviewed in detail.

A **P** at the end of the second line (with no selection space) indicates that the record was processed by the user at the detail screen level. The ACTION-IND will also have **Y** in it.

Additionally, the ACTION-IND will be automatically changed to **Y** (Yes) by the system if the user proceeds to the detail screen and then presses **[ENTER]** to return to the summary screen. This will indicate the record has been reviewed at the detail level. The ACTION-IND will not be updated if the user elects to utilize one of the "exit" options detailed below from the detail screen.

There is no manual update capability for the element ACTION-IND.

Other available OPTIONS are:

- OPTION <1> **REPEAT DISPLAY FROM TOP** - Returns the user to the first record on the first screen.
- OPTION <19> **MRP QUEUE MAIN MENU** - Returns the user to the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 22).
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on “**FAST PATH FEATURE**” (Pg. 222) for details.
- OPTION <99> **MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU - MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

3.1.11B REQUIREMENTS - FED / MIL STOCK BUY STATUS (DETAIL SCREEN)

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING	MRP239A
** REQUIREMENTS - FED / MIL STOCK BUY STATUS **		

PROCESS DATE: 08/04/92	IM: 76	PROCESS TIME: 14:00:30
RSN: QUANTITY APPEARS EXCESSIVE - PARTIAL QUANTITY SUPPLIED		
NSN : 1560 00 326 4450 _	DESC:	APP-TO : DBRITE
ORIG NSN : 1560 00 326 4450	C/A : 72	DUE-IN DATE: 00/00/00
AVG W/P : 1.36		PRIORITY : 5
QUANTITY : 5_____	U/I: EA	
COST : 6.80		
CLEAR TEXT: VOU - 22164621		
PSC : FPZ	ADVICE: ____	

1 - RE-PROCESS	4 - COMMERCIAL	9 - MRP QUEUE MAIN MENU
2 - DISCARD	5 - VIEW MASTER	20 - PRINT REQUIREMENT RECORD
		29 - SELECT FAST PATH EXIT
		99 - MRP MAIN MENU
PRESS ENTER TO CONTINUE OR ENTER OPTION: ____		

FIGURE 23

MRP QUEUE MANAGEMENT - REQUIREMENTS
FED / MIL STOCK BUY STATUS (DETAIL)

When an Inventory Manager selects a record for detail review, a detail screen will be presented that shows the key information returned in the status record from the FEDSTRIP / MILSTRIP supply source.

The supply status code is interpreted in the information under RSN. Other elements on the screen will contain information as follows:

CLEAR-TEXT Original voucher number for the stock buy (to facilitate any needed changes to existing due-in records by the Inventory Manager)

NSN

ORIG-NSN

DUE - IN DATE

The results of any action taken on the detail screen will be reflected on the summary screen when the Inventory Manager returns to it. **D** on the far right side of the screen indicates that record has been "Discarded," while **P** indicates it has been "Processed."

This process handles the NSN/Master Inventory check a little differently than the other MRP Queue processes. It will check the NSN in the MRP Queue record against the Master Inventory file when a detail record is requested. If no record is found, the process will check the D&T file. If a D&T record is found, the process will display the detail screen with the following message at the top of the screen:

NSN XXXX-XX-XXX-XXXX-X TRANSFERRED TO XXXX-XX-XXX-XXXX-X

However, no change will be made to the information displayed as "NSN" on the screen.

This will give the Inventory Manager information he/she needs about the NSN, but the process will still retain the integrity of the information passed back from the supply source.

If no record is found on the D&T file, the process will display the detail screen with the message:

NSN NOT ON RECORD, CANNOT BE PROCESSED

If the NSN is on the Master Inventory file, the detail screen will be displayed with no message at the top.

The following fields are available for input on this screen:

NSN Allow the Inventory Manager to revise the NSN as needed. (IM may decide to reorder the original NSN, rather than an offered substitute or alternative item.)

REQMT QTY May be manually changed

PSC Procurement Source Code - Inventory Manager will input as needed to re-direct a stock buy

ADVICE Advice-Status Code - Inventory Manager will input as needed.

The options available from this detail screen and the processing edits and controls are:

OPTION <1> **RE-PROCESS** - A new order will be formatted and sent to the designated FEDSTRIP/MILSTRIP source.

Before formatting the new stock buy record, the process will perform the following **edits**:

- Check to be sure the NSN is on the Master Inventory record. If it is not on the Master, the process will not be allowed to continue. (There will be no further check on the D&T file - it was checked when the detail screen was presented. The Inventory Manager will have to enter the specific NSN he/she wants ordered).

OPTION <2> **DISCARD** - Update the Queue Status on the Requirement record to show it as discarded. Return the Inventory Manager to the summary screen or to the next detail record that was selected. If the return is to the summary screen, mark that line with a **D** (for "DISCARDED") and eliminate the selection space (record cannot be selected again).

OPTION <4> **COMMERCIAL** - This option allows the Inventory Manager to direct the replenishment action to an alternative source of supply. Rather than creating a record for the FEDSTRIP / MILSTRIP source, this option formats a record for the Automated Procurement System (APS) to handle.

The Inventory Manager will need to go into APS to complete the action on this record, and this can be done by using the FAST PATH option.

- OPTION <5> **VIEW MASTER** - Display "View Master" screen. See separate section on "View Master" Option.
- OPTION <9> **MRP QUEUE MAIN MENU** - Returns the user to the **MRP QUEUE MAIN MENU** - **MRP230**, (Pg. 124).
- OPTION <20> **PRINT REQUIREMENT RECORD** - Prints report LGL239 (REQUIREMENTS - FED / MIL STOCK BUY STATUS), and returns user to the summary screen.
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on "**FAST PATH FEATURE**" (Pg. 222) for details.
- OPTION <99> **MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

3.1.12 MRP QUEUE - INVALID ITEM MANAGER REQUIREMENT RECORDS

For selected Security Levels (5 and Z), there will also be a capability to view the Requirement records that could not be directed to a valid Inventory Manager Code / organizational identifier. The records are presented in summary form and in NSN sequence. They also identify the Inventory Manager Code that the MRP process identified for the NSN.

The user has the capability to view this display of summary records and to route them to a valid Inventory Manager Code, or to discard them at this point. A similar but separate screen is used to display Review Reason Notice records. See below.

08/31/92		LIS / MATERIAL REQUIREMENTS PLANNING						MRP240	
** INVALID ITEM MANAGER REQUIREMENTS **									

ITEM MGR: __						PROCESS			
<u>*</u>	<u>IM</u>	<u>NSN</u>				<u>DESCRIPTION</u>	<u>APP-TO</u>	<u>DATE</u>	<u>DAYS</u>
_	63	0056 00 058 4000				TM 43	PRTR 43	08/29/92	2
RSN: ACQUISITION RECORD									
_	90	0056 00 094 2000				TM 25KVA CA32274	EG25KVA	08/29/92	2
RSN: ACQUISITION RECORD									
_	90	0056 00 208 2000				TM FA-5335	ATCBI	08/29/92	2
RSN: ACQUISITION RECORD									
_	90	0056 00 226 2000				18.75KVA FA1078	EG18-75K	08/29/92	2
RSN: ACQUISITION RECORD									
_	90	0056 00 226 2000				18.75KVA FA1078	EG18-75K	08/29/92	2
RSN: ACQUISITION RECORD									
_	90	0056 00 227 1000				37.5KVA FA1993	EG37-5KV	08/29/92	2
RSN: ACQUISITION RECORD									
								** MORE **	
* = 'D' FOR DISCARD, 'X' TO ROUTE AND PRESS ENTER TO CONTINUE									
OR ENTER OPTION: __ 1 - REPEAT DISPLAY FROM TOP 29 - SELECT FAST PATH EXIT									
9 - MRP QUEUE MAIN MENU 99 - MRP MAIN MENU									

FIGURE 24
MRP QUEUE MANAGEMENT -
INVALID ITEM MANAGER REQUIREMENT RECORDS

This screen displays multiple Requirement records with invalid Inventory Manager/organizational identifier codes when OPTION <10> is selected from the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 25).

The information displayed on the summary screen consists of the Inventory Manager on the record (at the beginning of the line), NSN, DESCRIPTION, APP-TO, PROCESS DATE when the record was created on the MRP Queue, and number of DAYS the record has been on the MRP Queue. The RSN (Reason) will be on the second line. The records are displayed in NSN sequence.

Up to six "Invalid..." records will be displayed on each summary screen. If **** MORE **** is displayed in the bottom right corner of the screen, it indicates that there are more records available. These can be seen by continuing to press **[ENTER]**. When **** END **** is displayed in the bottom right corner, the last record has been presented. Press **[ENTER]** and the user will be returned to the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 25).

One or more (or all) records can be selected for routing by inputting <X> in the field preceding the NSN.

The user may also elect to discard one or more "Invalid..." records from the summary screen by inputting <D> in the same selection field as shown before. The process will place the letter **D** at the end of the second line, and remove the selection space so the record cannot be selected again.

NOTE : The user should exercise care and judgment before discarding these records.

The only other field available for input on this screen is:

ITEM MGR Must be valid (on Inventory Manager table) - required only if record selected for routing (<X> in select space).

Other available OPTIONS are:

OPTION <1> REPEAT DISPLAY FROM TOP - Returns the user to the first record on the first screen.

OPTION <99> EXIT TO MRP-Q MAIN MENU - Returns the user to the MRP **QUEUE MAIN MENU** - **MRP230**, (Pg. 25).

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

3.1.13 MRP QUEUE - INVALID ITEM MANAGER REVIEW REASON NOTICES

For selected Security Levels (5 and Z), there will also be a capability to view the Review Reason Notice records that could not be directed to a valid Inventory Manager Code/Organizational Identifier. Like the "Invalid..." for Requirement records, these records are presented in summary form and in NSN sequence. They also identify the Inventory Manager Code that the MRP process identified for the NSN. The user has the capability to view the records in summary form on this display and to route them to a valid Inventory Manager Code, or to discard them at this point. Separate screens are used to display the Requirements and Review Reason Notice records. (There is no capability to review the records in detail.)

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING					MRP240
** INVALID ITEM MANAGER REVIEW REASON NOTICES **						

ITEM MGR: __			PROCESS			
* IM	NSN	DESCRIPTION	APP-TO	DATE	DAYS	
_ 63	0056 00 058 4000	TM 43	PRTR 43	08/29/92	2	
RSN: DEMAND FILTER TRIP - CURRENT MONTH DEMAND OUTSIDE OF ACCEPTABLE LIMITS						
_ 90	0056 00 094 2000	TM 25KVA CA32274	EG25KVA	08/29/92	2	
RSN: ALTERNATE FORECAST METHOD #1 HAS SMALLER ERROR						
_ 90	0056 00 208 2000	TM FA-5335	ATCBI	08/29/92	2	
RSN: FORECAST RESET - THIS MONTH					** END	
**						
* = 'D' FOR DISCARD, 'X' TO ROUTE AND PRESS ENTER TO CONTINUE						
OR ENTER OPTION: __ 1 - REPEAT DISPLAY FROM TOP 29 - SELECT FAST PATH EXIT						
9 - MRP QUEUE MAIN MENU			99 - MRP MAIN MENU			

FIGURE 25

MRP QUEUE MANAGEMENT -

INVALID ITEM MANAGER REVIEW REASON NOTICES

This screen displays multiple Review Reason Notice records with invalid Inventory Manager/organizational identifier codes when OPTION <11> is selected from the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 25). The information displayed on the summary screen consists of the Inventory Manager on the record (at the beginning of the line), NSN, DESCRIPTION, APP-TO, PROCESS DATE when the record was created on the MRP Queue, and number of DAYS the record has been on the MRP Queue.

The RSN (Reason) will be on the second line. The records are displayed in NSN sequence.

Up to six "Invalid..." records will be displayed on each summary screen. If **** MORE **** is displayed in the bottom right corner of the screen, it indicates that there are more records available. These can be seen by continuing to press **[ENTER]**. When **** END **** is displayed in the bottom right corner, the last record has been presented. Press **[ENTER]** and the user will be returned to the **MRP QUEUE MAIN MENU - MRP230**, (Pg. 25).

One or more (or all) records can be selected for routing by inputting <X> in the field preceding the NSN.

The user may also elect to discard one or more "Invalid..." records from the summary screen by inputting <D> in the same selection field as shown before. The process will place the letter D at the end of the second line, and remove the selection space so the record cannot be selected again.

NOTE : The user should exercise care and judgment before discarding these records.

The only other field available for input on this screen is:

ITEM MGR	Must be valid (on Inventory Manager table) - required only if record selected for routing (<X> in select space)
----------	---

Other available OPTIONS are:

OPTION <1> **REPEAT DISPLAY FROM TOP** - Returns the user to the first record on the first screen.

OPTION <99> **EXIT TO MRP-Q MAIN MENU** - Returns the user to the **MRP QUEUE MAIN MENU** - **MRP230**, (Pg. 25).

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

3.1.14 MRP QUEUE - OTHER INFORMATION

Modifications to Existing Programs

Because of the new MRP Queue File, it was necessary to modify some existing File Maintenance and Adjustment programs to consider this file. Those changes include the following processes:

Delete NSN (Transaction Code [T / C] 01T): The programs handling Delete actions have been changed to check for any matching records on the MRP Queue File, both Review Reason Notice and Requirement records. If any are found, the Delete action will be stopped. The Inventory Manager will need to take care of these records before the Delete NSN action can be completed.

Delete/Transfer (T / C 05R): No changes were required to the Delete/Transfer processes to consider the MRP Queue records.

There is already consideration within the MRP Queue processes for Delete/Transfer conditions, and the changes will be handled when the individual records are pulled up for processing.

Unit of Issue Change (T / C 20): The programs handling Unit of Issue changes will also check for any matching Requirement records on the MRP Queue (repair or acquisition). If any are found, they will be updated according to the Action Code and Adjustment Factor on the T / C 20 transaction. Since Review Reason Notice records do not normally consider quantities, the T / C 20 processes do not need to consider them.

3.1.15 PROCESSING WINDOW FOR SECONDARY ITEMS

NOTE : The identified processes for secondary items apply only to expendable items.

Within the Requirements process, any Requirement records created for secondary items will contain a special Reason text that identifies them specifically as "secondary." That text will be:

REQUIREMENT RECORD FOR SECONDARY - CHECK OTHER SUB/PREF NSN

This Reason text will override any other Reason texts that might apply (such as Borrow / Loan / Bin / RTV quantities).

Within the MRP Queue function, there will be processes that will prevent the Inventory Manager from actually replenishing stock on the secondary item.

These processes will attempt to direct the actual replenishment to the preferred item, but require some intervention by the Inventory Manager. This type of action is required because of possible problems with Substitute and Interchangeability (S&I) records associated with secondary items.

3.1.15A MRP QUEUE PROCESSING OPTIONS

If the Inventory Manager has a Requirement record for a secondary item (S&I Code = 3, A, C, Y) and requests a processing option, the programs will react as follows (regardless of replenishment source):

OPTION <1> **NORMAL PROCESS** - Process will present the S&I "window" for further action. See **section 3.1.15B**, (Pg. 113).

OPTION <2> **DISCARD** - Process normally - discard the record and return the user to the summary screen.

OPTION <3> **RECOMPUTE REQUIREMENT** - Process normally - present the "recompute" window and go through the rest of the "recompute" steps.

(The Inventory Manager will not be allowed to ever complete the processing, regardless of the outcome of the "recompute" request.)

OPTION <4> **COMMERCIAL or FED / MIL** (alternate source to "NORMAL PROCESS") - Same as for Option 1 - "Normal Process."

OPTION <5> **VIEW MASTER** - Process normally - read Master Inventory (and, as needed, Delete and Transfer), and present the View Master screen.

3.1.15B S&I "WINDOW" PROCESSING STEPS

When the Inventory Manager requests that the Requirement record for a secondary item be processed (whether "Normal Process" or "alternate process"), a "window" will be overlaid on the detail screen. This window will provide the Inventory Manager with information on the data in the secondary item's S&I record and the stock/acquisition status of the individual S&I "family member" NSN's.

The window will look like the following:

	<u>NSN</u>	<u>SERV</u>	<u>UI</u>	<u>DIA</u>	<u>D/O</u>	<u>F/D</u>
SUB1:						
SUB2:						
SUB3:						
PREF:						

ENTER OPTION: __	1 - CONSOLIDATE TO PREFERRED NSN			2 - DISCARD		
	THIS REQUIREMENT NOT PROCESSED			99 - EXIT		
	STOCK POSITION WILL BE EVALUATED					
	DURING NEXT MONTHLY CYCLE					
	PLEASE CONTACT LIS STAFF IF NOT SURE HOW TO PROCEED					

FIGURE 26
MRP QUEUE MANAGEMENT - S&I "WINDOW"

If there was no S&I record on file for the NSN (even though the item was coded as a secondary), the following message will be displayed at the top of the window:

NO S&I RECORD FOR NSN

Otherwise, the following elements will be displayed:

- NSN NSN for designated substitute (1, 2, 3, or PREF) from associated S&I record (see also "UI" below)
- SERV Serviceable Quantity from particular NSN's Master Inventory Record (if NSN is no record or has D&T record, will be blank)
- UI Unit of Issue from particular NSN's Master Inventory Record or:
 - DT = Not on Master Inventory but has Delete/Transfer record
 - NR = Not on Master Inventory, no Delete/Transfer record
- DIA Due-In Acquisition Quantity from particular NSN's Master Inventory Record (if NSN is no record or has D&T record, will be blank)
- D/O Due out Quantity from particular NSN's Master Inventory Record (if NSN is no record or has D&T record, will be blank)
- F/D Forecast Demand Quantity from particular NSN's Master Inventory Record (if NSN is no record or has D&T record, will be blank)

The following OPTIONS are available from the S&I processing window:

- OPTION <1> **CONSOLIDATE TO PREFERRED NSN...** - Will consolidate the Demand History values from the secondary item's record to the preferred item's record.
- Will make Forecast Demand zero and freeze the MRP Review Point and Safety Stock on the secondary item's record at zero.
- Will set the Forecast Reset flag on the preferred NSN to "Y" (Yes).
- Will discard the current Requirement record for the secondary item.
- OPTION <2> **DISCARD** - Discard the record and return the user to the summary screen.
- OPTION <99> **EXIT** - Returns the user to the next detail record that was selected or, if there are no other selected records, returns to the summary screen. The Requirement record for the secondary item remains in the system.

3.1.16 "RECOMPUTE" OPTIONS

On each type of MRP Queue detail screen, there is an option for the Inventory Manager to vary the data used in the Requirement computation and have the system recompute it. Three separate screens are used, depending on the type of detail Requirement record being reviewed.

The Recompute screen will reflect the element values that were used in computing the REQUIREMENT QUANTITY reflected on the particular MRP Queue detail screen.

The Inventory Manager can change one or more of the data elements on the Recompute screen and request the system recompute the requirement using the new values.

The changes entered on the Recompute screen are for computational purposes only. They DO NOT CHANGE any data on a Master Inventory record - if changes are required, the Inventory Manager should use normal File Maintenance or Adjustment procedures to accomplish the update. Also, no information on the Requirement record is changed. If the Recompute action produces a better result, the Inventory Manager will need to return to the detail screen and input the preferred value in REQUIREMENT QUANTITY before requesting one of the processing options.

3.1.16A RECOMPUTE REQUIREMENT - EXPENDABLE - MRP247

When the RECOMPUTE option is selected from any detail requirement screen for an expendable item, the screen shown below will be presented. The actual replenishment source may be any of the identified categories - Commercial, FEDSTRIP/MILSTRIP, Shop Fabrication, or Printing.

09/20/92	LIS / MATERIAL REQUIREMENTS PLANNING	MRP247
** REQUIREMENTS - RECOMPUTE REQUIREMENT - EXPENDABLE **		

NSN: 4720 00 910 6675	DESC: CHG LINE CH60CC-1	

FORECAST : 181_____	AVG W/P : 14.60_____	
ADDL DMD : _____	LATE PROC: 16.00_____	
SERV : 37_____		
		* * * * *
DIA : 130_____	REQMT QTY: 35	*
DUE OUT : _____		* * * * *
CRO : _____		
PLT : 3__		
SAFE STK : 4_____		

PRESS ENTER TO CONTINUE OR ENTER OPTION: __		99 - EXIT

FIGURE 27**REQUIREMENTS - RECOMPUTE REQUIREMENT - EXPENDABLE**

This screen will reflect the values for each of the listed elements that were used in computing the detail record's requirement quantity.

All elements are available for change except for the basic item data (NSN, DESCRIPTION) and the REQUIREMENT QUANTITY (comes only from computation).

The Inventory Manager can enter as many changes as desired and perform the recomputation as many times as he/she wants. The process will remain in the recomputation screen until an "exit" option is selected. The following are the only elements that are required to have values greater than zero:

PLT (PROCUREMENT LEAD - TIME)

AVG W/P (AVERAGE WEIGHTED PRICE)

The process will use the data from the screen and the replenishment formula appropriate for the type of record. The results of the recomputation will be shown in the REQUIREMENT QUANTITY box. If the changes result in no replenishment required, the REQUIREMENT QUANTITY will be blank and a message of "NO REQUIREMENT COMPUTED" will display at the top of the screen.

The following OPTIONS are available from the RECOMPUTE screen:

[ENTER] **PRESS ENTER TO CONTINUE** - Will recompute the REQUIREMENT QUANTITY using the values on the screen.

OPTION <99> **EXIT** - Returns the user to the detail record.

3.1.16B RECOMPUTE REQUIREMENT - E&R REPAIR - MRP248

When the Inventory Manager selects the RECOMPUTE option on a detail E&R Repair Requirement record, the system will display the screen shown below. This screen will be presented regardless of source (Commercial or Local Shop/AVN).

09/20/92	LIS / MATERIAL REQUIREMENTS PLANNING	MRP248
** REQUIREMENTS - RECOMPUTE REQUIREMENT - E & R REPAIR **		

NSN: 5998 01 089 9315	DESC: CCA 951531-1	

FCST DMD ROT: 3		
OUTRIGHT DMD:		
ADDL DMD :		
SERV :		
REP : 1	* * * * *	
DIA :	* NET REPAIR QTY : 1 *	
DIS :	* TOTAL REPAIR QTY: 3 *	
CDIS :	* * * * *	
ACR :		
DUE OUT :		
CRO :		
RLT : 6		
SAFE STK : 1		

PRESS ENTER TO CONTINUE OR ENTER OPTION: __		99 - EXIT

FIGURE 28
REQUIREMENTS - RECOMPUTE REQUIREMENT - E&R REPAIR

This screen, like the one for Expendable Acquisitions, will reflect the values for each of the listed elements that were used in computing the detail record's requirement quantity.

All elements are available for change except for the basic item data (NSN, DESCRIPTION) and NET REPAIR QUANTITY and TOTAL REPAIR QUANTITY (come only from computation).

The Inventory Manager can enter as many changes as desired and perform the recomputation as many times as he/she wants. The process will remain in the recomputation screen until an "exit" option is selected. The only element that is required to have a value greater than zero is:

RLT (REPAIR LEAD-TIME)

It should be noted, however, that if the REPARABLE QUANTITY is changed to zero, there will never be any value in NET REPAIR QUANTITY. There may be a value shown in TOTAL REPAIR QUANTITY, but there must be reparable items available before a "net" requirement for repair will be computed.

The process will use the data from the screen and the replenishment formula appropriate for the type of record. The results of the recomputation will be shown in the NET REPAIR QUANTITY/TOTAL REPAIR QUANTITY box. If the changes result in no replenishment required, there will be no quantities shown in the box and a message of "NO REQUIREMENT COMPUTED" will display at the top of the screen.

The following OPTIONS are available from the RECOMPUTE screen:

[ENTER] PRESS ENTER TO CONTINUE - Will recompute the REQUIREMENT QUANTITY using the values on the screen.

OPTION <99> EXIT - Returns the user to the detail record.

3.1.16C RECOMPUTE REQUIREMENT - E&R ACQUISITION - MRP249

Selecting the RECOMPUTE option from an E&R Acquisition detail screen will cause the system to present the following screen to the Inventory Manager.

09/20/92	LIS / MATERIAL REQUIREMENTS PLANNING	MRP249
** REQUIREMENTS - RECOMPUTE REQUIREMENT - E & R ACQUISITION **		

NSN: 5998 01 313 5101	DESC: CCA M68KVM01A1	

FCST DMD ROT: 6		
OUTRIGHT DMD:		
ADDL DMD :		
CONDEMNATION:		
SERV :		
REP : 3	* * * * *	
DIA :	* REQMT QTY: 1 *	
DIF :	* * * * *	
DIS :		
CDIS :		
CRO :		
RLT : 6		
I AND R : 3		

PRESS ENTER TO CONTINUE OR ENTER OPTION:		99 - EXIT

FIGURE 29
REQUIREMENTS - RECOMPUTE REQUIREMENT - E&R ACQUISITION

The RECOMPUTE screen for E&R Acquisition operates very similar to the screen for Expendable Acquisition. It will reflect the values for each of the listed elements that

were used in computing the detail record's requirement quantity. All elements are available for change except for the basic item data (NSN, DESCRIPTION) and the REQUIREMENT QUANTITY (comes only from computation).

The Inventory Manager can enter as many changes as desired and perform the recomputation as many times as he/she wants. The process will remain in the recomputation screen until an "exit" option is selected. The only element that is required to have a value greater than zero is:

RLT (REPAIR LEAD-TIME) [part of REPAIR CYCLE]

The process will use the data from the screen and the replenishment formula appropriate for the type of record. The results of the recomputation will be shown in the REQUIREMENT QUANTITY box. If the changes result in no replenishment required, the REQUIREMENT QUANTITY will be blank and a message of "NO REQUIREMENT COMPUTED" will display at the top of the screen.

The following OPTIONS are available from the RECOMPUTE screen:

[ENTER] **PRESS ENTER TO CONTINUE** - Will recompute the REQUIREMENT QUANTITY using the values on the screen.

OPTION <99> **EXIT** - Returns the user to the detail record.

3.1.17 "VIEW MASTER" OPTION - QUE408

The option for "View Master" in the MRP processes will provide a view of the Master Inventory record (the same view that is seen in Inventory Management Inquiries or Queue process).

This process will use the value in NSN to try to find the Master Inventory record to display. This value may be the NSN that the Requirements process originally used, or it may be a new NSN from a delete/transfer relationship (one that occurred after the Requirement record was created).

3.2 ADDITIONAL DEMAND FUNCTION

This function provides the capability to capture and mechanically consider known future demand that is not reflected by demand history. That future demand will normally be an increase, but it may also be a decrease. The most common usage expected is for special projects or overhauls.

The information is entered into the system by the user, and it is stored in the Additional Demand File by NSN and by month/year. The Requirements process will check the Additional Demand File and, as needed, include the appropriate Additional Demand records in the projected replenishment and budget actions. This should reduce some of the manual adjustments that the Inventory Manager has had to do in the past to ensure the replenishment actions were sufficient to support future needs.

The Additional Demand function includes both online and batch processes. The online processes provide the capability to add, modify, delete, and inquire Additional

Demand records. The batch processes will perform "housekeeping" duties and remove any "expired" records from the file. In addition, changes to existing File Maintenance processes have been made to consider the Additional Demand records as needed.

3.2.1 ADDITIONAL DEMAND MAINTENANCE - MAIN MENU - MRP210

The **ADDITIONAL DEMAND MAINTENANCE - MAIN MENU - MRP210**, provides access to the processes to add, modify, delete, and inquire Additional Demand records. It is accessible by Inventory Management personnel from the **MRP MAIN MENU - MRP200**, (Pg. 18) OPTION <2>. The modify, delete, and inquire functions provide the capability to view the records in summary and detail form. The modify and delete functions can only be completed from the detail screens. (Details on actual activities for each type of process are provided in each section discussing the specific screens.)

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING	MRP210
** ADDITIONAL DEMAND MAINTENANCE - MAIN MENU **		

1 - ADD DEMAND		
2 - MODIFY DEMAND		
3 - DELETE DEMAND		
4 - INQUIRE DEMAND		
9 - EXIT TO MRP MAIN MENU		
29 - SELECT FAST PATH EXIT		
99 - EXIT TO INV MGMT MAIN MENU		

ENTER OPTION: ____		

NSN: ____ _ (OPTIONS 1, 2, 3 & 4)		

FIGURE 31**ADDITIONAL DEMAND MAINTENANCE - MAIN MENU**

The Inventory Manager is required to input a valid NSN on this screen before being allowed access to any further processing capability. If the input NSN is not on the Master Inventory file, the menu process will check against the Delete and Transfer (D&T) file. If a D&T record is found, the process will display a message identifying the input and new NSN's. The Inventory Manager must change the NSN to the new NSN before he/she will be allowed to continue. If no D&T record is found, the process will return a message stating the NSN was not found.

The following OPTIONS are available from the Additional Demand Maintenance Main Menu:

- OPTION <1> **ADD DEMAND** - Provides access to a detail screen for creating one or more new records for the Additional Demand file.
- OPTION <2> **MODIFY DEMAND** - Provides access to a summary screen (if there is more than one record for the entered NSN) or to a detail screen (if there is only one record), for the purpose of making changes to existing records.
- OPTION <3> **DELETE DEMAND** - Provides access to a summary screen (if there is more than one record for the entered NSN) or to a detail screen (if there is only one record), for the purpose of deleting existing records.
- OPTION <4> **INQUIRE DEMAND** - Provides access to a summary screen (if there is more than one record for the entered NSN) or to a detail screen (if there is only one record), for the purpose of inquiring existing records.
- OPTION <9> **EXIT TO MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18)
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on “**FAST PATH FEATURE**” (Pg. 222) for details.

OPTION <99> **EXIT TO INV MGMT MAIN MENU** - Returns the user to the
INVENTORY MANAGEMENT MAIN MENU - INV001.

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

In the following pages, activities under each of the options are explained in further detail, with examples of the summary and detail level screens. The options available within each screen are identified, and processing details are explained.

3.2.2 ADDITIONAL DEMAND MAINTENANCE - ADD - MRP211

If the Inventory Manager entered a valid NSN and OPTION <1> on the **ADDITIONAL DEMAND MAINTENANCE MAIN MENU - MRP210**, (Pg. 128) the following screen would be presented to allow for creation of new Additional Demand records.

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING		MRP211
** ADDITIONAL DEMAND MAINTENANCE - ADD **			
NSN	: 4720 01 152 2668		
DEMAND MM-YY	: ____ (MMYY)	NUMBER OF MONTHS TO ESTABLISH:	__
ADDITIONAL DEMAND QUANTITY: ____		INCREASE/DECREASE	____ (I/D)
REASON:	_____ _____ _____ _____		

OPTION: __	ENTER - CONTINUE	9 - EXIT TO ADDITIONAL DEMAND MENU	
		29 - SELECT FAST PATH	
		99 - EXIT TO MRP MAIN MENU	

FIGURE 32

ADDITIONAL DEMAND MAINTENANCE - ADD

The Inventory Manager is required to input the following information:

DEMAND MM-YY Must be a valid month and year in the future but no more than 36 months into the future.

**NUMBER OF MONTHS
TO ESTABLISH**

Input is required only if the user wants to create more than one record.

If input, the system will create the specified number of consecutive records, beginning with the input DEMAND MM-YY and using the ADDITIONAL DEMAND QUANTITY.
(Cannot create more than 36 records or create records for months beyond the 36-month limit.)

If not input, will create a single record for the specified month/year.

**ADDITIONAL DEMAND
QUANTITY**

Must be input.

**INCREASE /
DECREASE**

Must be input - < I > for increase, < D > for decrease.
("Increase" will add the specified quantity to forecast and other demand categories, while "Decrease" will subtract it from those values).

REASON

Cannot be blank - some text must be input here.

The following OPTIONS are available from the Additional Demand Maintenance - Add screen:

- [ENTER]** CONTINUE - Will edit the input data and, if acceptable, create the new record(s) on the Additional Demand File with the specified data, including identification of who created the record(s) and when. If the input data is not acceptable, will return an appropriate error message.
- OPTION <9> **EXIT TO ADDITIONAL DEMAND MENU** - Returns the user to the **ADDITIONAL DEMAND MAINTENANCE MAIN MENU** - **MRP210**, (Pg. 128).
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on "**FAST PATH FEATURE**" (Pg. 222) for details.
- OPTION <99> **EXIT TO MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the OPTION field, and press **[ENTER]** to continue.

If the "add" transaction was successfully completed, a "window" will be overlaid on the screen to indicate the transaction was successful.

When the Inventory Manager presses **[ENTER]**, he/she will be presented with a new "add" screen for the same NSN, in case he/she needs to create more than one record for that NSN. When all desired records have been completed, he/she should input <9> in OPTION for EXIT TO ADDITIONAL DEMAND MENU or some other "exit" option.

3.2.3 ADDITIONAL DEMAND MAINTENANCE - MODIFY - MRP212/3

NOTE : The Modify, Delete, and Inquire processes use the same summary and detail screens, modifying selected display titles and options as needed to match the requested function.

If the Inventory Manager entered a valid NSN and OPTION <2> on the **ADDITIONAL DEMAND MAINTENANCE MAIN MENU - MRP210**, (Pg. 128), the process will check to see if there is only a single record on the specified NSN. If so, it will skip the summary screen shown below and immediately present the detail screen that is shown later. Otherwise, the summary screen would be presented to allow the Inventory Manager to select the record(s) he/she wants to modify.

3.2.3A ADDITIONAL DEMAND MAINTENANCE SUMMARY - MODIFY (SUMMARY SCREEN) - MRP212

```

08/31/92          LIS / MATERIAL REQUIREMENTS PLANNING          MRP212
          ** ADDITIONAL DEMAND MAINTENANCE SUMMARY - MODIFY **
-----
NSN: 4720 01 152 2668
-----
          DEMAND    ADDITIONAL    INCREASE    DATE    ORIG
          * MM-YY      DEMAND      DECREASE  ESTABLISHED  USER-ID
          _ 12-92        2          I          08/31/92  LGACFK
          _ 01-93        2          I          08/31/92  LGACFK
          _ 02-93        2          I          08/31/92  LGACFK
                                     ** END **

' ' - MARK WITH 'X' TO MODIFY
-----
OPTION:  _  ENTER - CONTINUE          9 - EXIT TO ADDITIONAL DEMAND MENU
          1 - REPEAT FROM TOP        29 - SELECT FAST PATH
                                     99 - EXIT TO MRP MAIN MENU

```

FIGURE 33

ADDITIONAL DEMAND MAINTENANCE SUMMARY - MODIFY

The summary screen will be presented when there is more than one Additional Demand record that could be modified. Up to eight Additional Demand records will be displayed on each summary screen. One or more (or all) records can be selected for viewing in detail and possible additional action by inputting <X> in the field preceding the NSN. If **** MORE **** is displayed in the bottom right corner of the screen, it indicates that there are more records available.

These can be seen by continuing to press **[ENTER]**. When **** END **** is displayed in the bottom right corner, the last record has been presented. Press **[ENTER]** and the user will be returned to the **ADDITIONAL DEMAND MAINTENANCE MAIN MENU - MRP210**, (Pg. 128).

Besides selecting records for viewing in detail and possible modification, the following **OPTIONS** are available from the Additional Demand Maintenance Summary - Modify screen:

- [ENTER]** **CONTINUE** - Will present the next screen of records for possible selection for viewing in detail, or, if there are no more records, will return user to the **ADDITIONAL DEMAND MAINTENANCE MAIN MENU - MRP210**, (Pg. 128).
- OPTION <1> **REPEAT FROM TOP** - Returns the user to the first record on the first summary screen.
- OPTION <9> **EXIT TO ADDITIONAL DEMAND MENU** - Returns the user to the **ADDITIONAL DEMAND MAINTENANCE MAIN MENU - MRP210**, (Pg. 128).
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on **"FAST PATH FEATURE"** (Pg. 222) for details.
- OPTION <99> **EXIT TO MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU - MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the OPTION field, and press **[ENTER]** to continue.

Once the Inventory Manager has completed desired modification(s) at the detail level, he/she will be returned to the summary screen and the updated records will be tagged with **MODIFIED** beside the appropriate line on the summary screen. If changes were made to elements displayed on the summary screen, the line(s) will be tagged with **MODIFIED**, but NO CHANGES will be reflected in the screen display (the process does not re-read the file to get the current data). The selection space remains on the screen, so the record can be selected again for further modification if needed.

3.2.3B ADDITIONAL DEMAND MAINTENANCE DETAIL - MODIFY (DETAIL SCREEN) - MRP213

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING		MRP213
** ADDITIONAL DEMAND MAINTENANCE DETAIL - MODIFY **			

NSN	:	4720 01 152 2668	
DEMAND MM-YY	:	12-92	
ADDITIONAL DEMAND QUANTITY:	2	_____	INCREASE/DECREASE: I
REASON: SPECIAL OVERHAUL PROJECT AT SELECTED FIELD SITES_____			

ESTABLISHED BY: LGACFK ON 08/31/92 AT 16:28:21			
LAST UPDATE BY: LGACFK ON 08/31/92 AT 16:28:21			

OPTION: ____	ENTER - CONTINUE	9 - EXIT TO ADDITIONAL DEMAND MENU	
		29 - SELECT FAST PATH	
		99 - EXIT TO MRP MAIN MENU	

FIGURE 34

ADDITIONAL DEMAND MAINTENANCE DETAIL - MODIFY

The detail screen will be presented when a record was selected from the summary screen for possible modification. Records can only be modified from the detail screen; no modifications are allowed on the summary screen.

The Inventory Manager can modify the following elements:

ADDITIONAL DEMAND

QUANTITY Must be greater than zero.
INCREASE/DECREASE Must be < I > for increase, < D > for decrease.
("Increase" will add the specified quantity to forecast and other demand categories, while "Decrease" will subtract it from those values.)

REASON Cannot be blank -- some text must be in this field.

NOTE : This process cannot be used to change **DEMAND MM-YY**. If the needed action is to move the ADDITIONAL DEMAND QUANTITY to another month/year, the record must be deleted and re-entered.

The following OPTIONS are available from the Additional Demand Maintenance Detail - Modify screen:

[ENTER] **CONTINUE** - Will edit the revised screen data and, if the changes are acceptable, will modify the record on the Additional Demand File with the specified data. If not acceptable, will return an appropriate error message.

If no changes were actually entered, will present the next record selected or return to the summary screen.

OPTION <9> **EXIT TO ADDITIONAL DEMAND MENU** - Returns the user to the **ADDITIONAL DEMAND MAINTENANCE MAIN MENU - MRP210**, (Pg. 128).

- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on "**FAST PATH FEATURE**" (Pg. 222) for details.
- OPTION <99> **EXIT TO MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the OPTION field, and press **[ENTER]** to continue.

If the modification was successfully completed, a "window" will be overlaid on the screen to show the transaction was successfully completed. It will direct the Inventory Manager to "...**PRESS ENTER TO CONTINUE.**" When the Inventory Manager presses **[ENTER]**, he/she will be presented the next record selected for modification or, if this was the last record, will be returned to the summary screen. See section on the summary screen for additional information.

An example of the window overlay is shown in the sample that follows.

FIGURE 35
ADDITIONAL DEMAND MAINTENANCE DETAIL - MODIFY
TRANSACTION PROCESSED "WINDOW"

3.2.4 ADDITIONAL DEMAND MAINTENANCE - DELETE - MRP212/3

NOTE : The Modify, Delete, and Inquire processes use the same summary and detail screens, modifying selected display titles and options as needed to match the requested function.

If the Inventory Manager entered a valid NSN and OPTION <3> on the **ADDITIONAL DEMAND MAINTENANCE MAIN MENU - MRP210**, (Pg. 128), the process will check to see if there is only a single record on the specified NSN.

If so, it will skip the summary screen shown below and immediately present the detail screen that is shown later. Otherwise, the summary screen would be presented to allow the Inventory Manager to select the record(s) he/she wants to delete.

3.2.4A ADDITIONAL DEMAND MAINTENANCE SUMMARY - DELETE (SUMMARY SCREEN) - MRP212

08/31/92		LIS / MATERIAL REQUIREMENTS PLANNING			MRP212
** ADDITIONAL DEMAND MAINTENANCE SUMMARY - DELETE **					

NSN: 4720 01 152 2668					

	DEMAND	ADDITIONAL	INCREASE	DATE	ORIG
*	MM-YY	DEMAND	DECREASE	ESTABLISHED	USER-ID
___	12-92	2	I	08/31/92	LGACFK
___	01-93	2	I	08/31/92	LGACFK
___	02-93	2	I	08/31/92	LGACFK
					** END **
'*' - MARK WITH 'X' TO DELETE					

OPTION: ___	ENTER - CONTINUE		9 - EXIT TO ADDITIONAL DEMAND MENU		
1	- REPEAT FROM TOP		29 - SELECT FAST PATH		
			99 - EXIT TO MRP MAIN MENU		

FIGURE 36
ADDITIONAL DEMAND MAINTENANCE SUMMARY - DELETE

The summary screen will be presented when there is more than one Additional Demand record that could be deleted.

Up to eight Additional Demand records will be displayed on each summary screen. One or more (or all) records can be selected for viewing in detail and possible additional action by inputting <X> in the field preceding the NSN.

If **** MORE **** is displayed in the bottom right corner of the screen, it indicates that there are more records available. These can be seen by continuing to press **[ENTER]**. When **** END **** is displayed in the bottom right corner, the last record has been presented. Press **[ENTER]** and the user will be returned to the **ADDITIONAL DEMAND MAINTENANCE MAIN MENU - MRP210**, (Pg. 128),.

Besides selecting records for viewing in detail and possible deletion, the following **OPTIONS** are available from the Additional Demand Maintenance Summary - Delete screen:

- [ENTER]** CONTINUE - Will present the next screen of records for possible selection for viewing in detail, or, if there are no more records, will return user to the **ADDITIONAL DEMAND MAINTENANCE MAIN MENU - MRP210**, (Pg. 128).
- OPTION <1> **REPEAT FROM TOP** - Returns the user to the first record on the first summary screen.
- OPTION <9> **EXIT TO ADDITIONAL DEMAND MENU** - Returns the user to the **ADDITIONAL DEMAND MAINTENANCE MAIN MENU - MRP210**, (Pg. 128).
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on **"FAST PATH FEATURE"** (Pg. 222) for details.

OPTION <99> **EXIT TO MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18)

Select the OPTION desired, input the OPTION number in the OPTION field, and press **[ENTER]** to continue.

Once the Inventory Manager has completed desired deletion(s) at the detail level, he/she will be returned to the summary screen and the updated records will be tagged with DELETED beside the appropriate line on the summary screen. The select space will also be removed, so the record cannot be selected for additional action.

3.2.4B ADDITIONAL DEMAND MAINTENANCE DETAIL - DELETE (DETAIL SCREEN) - MRP213

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING	MRP213
** ADDITIONAL DEMAND MAINTENANCE DETAIL - DELETE **		

NSN	: 4720 01 152 2668	
DEMAND MM-YY	: 12-92	
ADDITIONAL DEMAND QUANTITY:	2_____	INCREASE/DECREASE: I
REASON:	SPECIAL OVERHAUL PROJECT AT SELECTED FIELD SITES_____	

ESTABLISHED BY:	LGACFK	ON 08/31/92 AT 16:28:21
LAST UPDATE BY:	LGACFK	ON 08/31/92 AT 16:28:21

OPTION: ____	ENTER - CONTINUE	9 - EXIT TO ADDITIONAL DEMAND MENU
		29 - SELECT FAST PATH
		99 - EXIT TO MRP MAIN. MENU

FIGURE 37

ADDITIONAL DEMAND MAINTENANCE DETAIL - DELETE

The detail screen will be presented when a record was selected from the summary screen for possible deletion. Records can only be deleted from the detail screen; no deletions are allowed on the summary screen.

The following OPTIONS are available from the Additional Demand Maintenance Detail - Delete screen:

- [ENTER]** CONTINUE - Will present a window to request verification of the deletion request.
- If the user responds "Y" (YES) on the window, the record will be deleted from the file.
- If the response is "N" (NO) on the window, the user will be taken to the next record selected for possible deletion or will be returned to the summary screen if no more selected records are left.
- OPTION <9> **EXIT TO ADDITIONAL DEMAND MENU** - Returns the user to the **ADDITIONAL DEMAND MAINTENANCE MAIN MENU** - **MRP210**, (Pg. 128).
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on "**FAST PATH FEATURE**" (Pg. 222) for details.
- OPTION <99> **EXIT TO MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the ENTER OPTION field, and press **[ENTER]** to continue.

[illegible]

Logistics And Inventory System
FAA Logistics Center

When the Inventory Manager presses **[ENTER]**, he/she will be presented the next selected record for deletion or will be returned to the summary screen. (See section on the summary screen for additional information).

3.2.5 ADDITIONAL DEMAND MAINTENANCE - INQUIRE - MRP212/3

NOTE : The Modify, Delete, and Inquire processes use the same summary and detail screens, modifying selected display titles and options as needed to match the requested function.

If the Inventory Manager entered a valid NSN and OPTION <4> on the **ADDITIONAL DEMAND MAINTENANCE MAIN MENU - MRP210**, (Pg. 128), the process will check to see if there is only a single record on the specified NSN. If so, it will skip the summary screen shown below and immediately present the detail screen that is shown later. Otherwise, the summary screen will be presented to the Inventory Manager for information only (no changes are allowed).

3.2.5A ADDITIONAL DEMAND MAINTENANCE SUMMARY - INQUIRE (SUMMARY SCREEN) - MRP212

08/31/92		LIS / MATERIAL REQUIREMENTS PLANNING			MRP212
** ADDITIONAL DEMAND MAINTENANCE SUMMARY - INQUIRE **					

NSN: 4720 01 152 2668					

	DEMAND	ADDITIONAL	INCREASE	DATE	ORIG
*	<u>MM-YY</u>	<u>DEMAND</u>	<u>DECREASE</u>	<u>ESTABLISHED</u>	<u>USER-ID</u>
—	12-92	2	I	08/31/92	LGACFK
—	01-93	2	I	08/31/92	LGACFK
—	02-93	2	I	08/31/92	LGACFK
** END **					
'*' - MARK WITH 'X' TO INQUIRE					

OPTION: ____	ENTER - CONTINUE		9 - EXIT TO ADDITIONAL DEMAND MENU		
	1 - REPEAT FROM TOP		29 - SELECT FAST PATH		
	20 - PRINT		99 - EXIT TO MRP MAIN MENU		

FIGURE 39

ADDITIONAL DEMAND MAINTENANCE SUMMARY - INQUIRE

The summary screen will be presented when there is more than one Additional Demand record that could be inquired. Up to eight Additional Demand records will be displayed on each summary screen. One or more (or all) records can be selected for viewing in detail by inputting <X> in the field preceding the NSN.

If **** MORE **** is displayed in the bottom right corner of the screen, it indicates that there are more records available.

These can be seen by continuing to press **[ENTER]**. When **** END **** is displayed in the bottom right corner, the last record has been presented. Press **[ENTER]** and the user will be returned to the **ADDITIONAL DEMAND MAINTENANCE MAIN MENU - MRP210**, (Pg. 128).

Besides selecting records for viewing in detail, the following **OPTIONS** are available from the Additional Demand Maintenance Summary - Inquire screen:

- [ENTER]** **CONTINUE** - Will present the next screen of records for possible selection for viewing in detail or, if there are no more records, will return the user to the **ADDITIONAL DEMAND MAINTENANCE MAIN MENU - MRP210**, (Pg. 128).
- OPTION <1>** **REPEAT FROM TOP** - Returns the user to the first record on the first summary screen.
- OPTION <9>** **EXIT TO ADDITIONAL DEMAND MENU** - Returns the user to the **ADDITIONAL DEMAND MAINTENANCE MAIN MENU -MRP210**, (Pg. 128).
- OPTION <20>** **PRINT** - Prints report LGI214 (ADDITIONAL DEMAND MAINTENANCE SUMMARY) and leaves user on the summary screen.

- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on “**FAST PATH FEATURE**” (Pg. 222) for details.
- OPTION <99> **EXIT TO MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the OPTION field, and press **[ENTER]** to continue.

3.2.5B ADDITIONAL DEMAND MAINTENANCE DETAIL - INQUIRE (DETAIL SCREEN) - MRP213

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING		MRP213
** ADDITIONAL DEMAND MAINTENANCE DETAIL - INQUIRE **			

NSN	:	4720 01 152 2668	
DEMAND MM-YY	:	12-92	
ADDITIONAL DEMAND QUANTITY:	2	INCREASE/DECREASE:	I
REASON:	SPECIAL OVERHAUL PROJECT AT SELECTED FIELD SITES		

ESTABLISHED BY:	LGACFK	ON 08/31/92 AT 16:28:21	
LAST UPDATE BY:	LGACFK	ON 08/31/92 AT 16:28:21	

OPTION: ____	ENTER - CONTINUE	9 - EXIT TO ADDITIONAL DEMAND MENU	
	20 - PRINT	29 - SELECT FAST PATH	
		99 - EXIT TO MRP MAIN MENU	

FIGURE 40

ADDITIONAL DEMAND MAINTENANCE DETAIL - INQUIRE

The detail screen will be presented when a record was selected from the summary screen for inquiry.

No data fields can be modified from this screen.

The following OPTIONS are available from the Additional Demand Maintenance Detail - Inquire screen:

- [ENTER]** **CONTINUE** - Will display the details for the next record selected, or return the user to the summary screen.
- OPTION <9> **EXIT TO ADDITIONAL DEMAND MENU** - Returns the user to the **ADDITIONAL DEMAND MAINTENANCE MAIN MENU -MRP210**, (Pg. 128).
- OPTION <20> **PRINT** - Prints report LGI214A (ADDITIONAL DEMAND MAINTENANCE DETAIL) and returns user to the summary screen.
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on "**FAST PATH FEATURE**" (Pg. 222) for details.
- OPTION <99> **EXIT TO MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU - MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the OPTION field, and press **[ENTER]** to continue.

3.2.5 ADDITIONAL DEMAND - OTHER INFORMATION

"Housekeeping" Process

There is a batch process that will run monthly and will take care of identifying and removing any "expired" records on the Additional Demand File.

Modifications to Existing Programs

A new file, Additional Demand File, was added to the system to support the Additional Demand functions. It was necessary to modify some existing File Maintenance and Adjustment programs to consider the Additional Demand File. Those changes include the following processes:

Delete NSN (Transaction Code [T / C] 01T): The programs handling Delete actions have been changed to check for any matching records on the Additional Demand File. If any are found, the Delete action will be stopped. The Inventory Manager will need to delete the applicable Additional Demand records before the Delete NSN action can be completed.

Delete/Transfer (T / C 05R): The programs handling Delete/Transfer actions will also check for any matching records on the Additional Demand File and update them as appropriate with the new NSN. If this update would result in duplicate records, the records under the old and new NSN's will be consolidated (quantity and text). If an overflow would result, the quantity will be set at the maximum value and a Review Reason Notice will be written to the Inventory Manager's MRP Queue.

Unit of Issue Change (T / C 20): The programs handling Unit of Issue changes will also check for any matching records on the Additional Demand File. If any are found, they will be updated according to the Action Code and Adjustment Factor on the T / C 20 transaction.

3.3 MATERIAL REQUIREMENTS PLANNING (MRP) DATA (TABLE)

The Material Requirements Planning (MRP) Data (Table) provides the Inventory Manager with a long-range, planning view of an NSN. Demand is projected, assets are applied, and new requirements and their receipts are projected.

During the monthly processes, the Forecast Demand and Requirements processes take care of pulling together the information that is put into the MRP Data File. There are no online update processes associated with this file. The only online capabilities available allow the Inventory Manager to view the information in segments, or to request a partial or full printed copy.

Because of the amount of information available, multiple screens have been created. The Inventory Manager can select from a number of categories of data, and he/she will then be presented with a screen representing 1 year (12 periods) of data. He/she can continue to press the "enter" key and will see screens with "Year 2" and "Year 3" data. Categories of data include :

Beginning Balances/Other Data
Projected On Hand Quantities
Projected Monthly Demand

Planned (Firm) Receipts
Projected Actions
Projected Budget Actions

Two terms that should be kept in mind are:

"Planned " Means "currently in process, with existing due-in records
(like Due-In Acquisition)"

"Projected..." Means "prediction of future action (demand, receipt, etc.)"

From any of the display screens, the Inventory Manager will have multiple print capabilities: he/she may print any of the single year's data or get a print of the entire table (3 years - 3 pages). The Inventory Manager will also have the capability to go back and redisplay the data from the beginning. In addition, there are multiple exit options, either back to the **MRP DATA (TABLE) INQUIRY MAIN MENU - MRP250**, (Pg. 158) or all the way back to the **MRP MAIN MENU - MRP200**, (Pg. 18).

Due to space limitations, a "FAST PATH" capability from the detail inquiry screens was not included. It will be available on the MRP Data (Table) Inquiry Main Menu.

Examples of each screen and detailed information on each one follow.

3.3.1 MRP DATA (TABLE) INQUIRY - MAIN MENU - MRP250

When an Inventory Manager or other authorized user requests OPTION <3> from the **MRP MAIN MENU - MRP200**, (Pg. 18), he/she will be presented with the following menu for selecting the next option.

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING	MRP250
** MRP DATA (TABLE) INQUIRY - MAIN MENU **		

1 - BEGINNING BALANCES/OTHER DATA		
2 - PROJECTED ONHAND QUANTITIES		
3 - PROJECTED MONTHLY DEMAND		
4 - PLANNED (FIRM) RECEIPTS		
5 - PROJECTED ACTIONS		
6 - PROJECTED BUDGET ACTIONS		
9 - EXIT TO MRP MAIN MENU		
29 - SELECT FAST PATH EXIT		
99 - EXIT TO INV MGMT MAIN MENU		

ENTER OPTION : ____		

NSN: ____ _		

FIGURE 41

MRP DATA (TABLE) INQUIRY - MAIN MENU

Since these screens are inquiry only, there will be few restrictions on who can see which data.

Users that have access to the MRP function will be able to get to this menu and pull up any segment of the data.

These users will normally be Inventory Managers and their supervisors, as well as LIS maintenance/ development personnel.

The following data is required on this screen:

OPTION ==> Required

NSN ==> Required unless an "exit" option is selected.

NSN input can only be an operating NSN -- the process does not apply to Facility and Equipment (F&E) NSN's.

NSN input must be on the Master Inventory file or on the Delete/Transfer file. If the NSN is on the Delete/Transfer file, there will be a message on the next screen identifying the "Transfer To..." NSN.

NOTE : The user must be especially careful if the query is against an NSN that has just deleted and transferred, because the MRP Data records may not reflect all possible demands. This situation is remedied by the next monthly MRP process.

It is possible that an NSN is good (on the Master Inventory or Delete/Transfer file), but there is no MRP Data file associated with it. This would occur if an NSN was newly added to the file or on a "Delete/Replace By" transaction where the new NSN is not on file. The MRP Data will be created in the first monthly run after the "Add NSN" (T / C 02T) or "...Replace By" (T / C 05R4) transaction.

The MRP Data inquiry process will return a message stating that no information has been found for this NSN.

When the process returns to this menu, it will retain the NSN that was originally input (or, in the case of a Delete/Transfer, the "Transfer To" NSN), to facilitate the Inventory Manager or other user going to look at additional data on the same NSN.

3.3.2 MRP DATA (TABLE) INQUIRY - BEGINNING BALANCES/OTHER DATA

Inputting OPTION <1> and a good NSN on the **MRP DATA (TABLE) INQUIRY - MAIN MENU - MRP250**, (Pg. 158) will cause this screen to be presented.

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING				MRP251
** MRP DATA (TABLE) INQUIRY - BEGINNING BALANCES/OTHER DATA **					

INFORMATION IS AS OF END OF PREVIOUS MONTH					

NSN: 6130 01 294 7479		UI: EA CA: 63	MO/SYS: 55	MO/CAT: 55	APP-TO: ASR9
DESC: PS 1D20620G01		MGT: 6	AVG WP: 5963.74	EST RPR:	
TOTAL: 9	D/O :	MRP REV PT: 5		IM : 36	
SERV : 4	DIA : 10	SHELF LIFE:		S&I: B	
REP : 2	ACR :	SAFETY STK: 1			
SURV :		PLT : 6		PSC: ANP	
DIF : 1	BORR :	RLT : 2		RSC: 240	
DIS : 2	LOAN :	I&R : 3			
CDIS :	RESV :			EOQ : 9	
BIN :		QUP CODE : 1		DISP: P	
RTV :		QUP TYPE : 3			
** END **					

OPTION: ____		ENTER - CONTINUE			
20 - PRINT TABLE YR 1		22 - PRINT TABLE YR 3		9 - EXIT TO MRP DATA MENU	
21 - PRINT TABLE YR 2		23 - PRINT ENTIRE TABLE		99 - EXIT TO MRP MAIN MENU	

FIGURE 42

MRP DATA (TABLE) INQUIRY - BEGINNING BALANCES/OTHER DATA

A single screen is used here to show the Inventory Manager the beginning balances on a particular NSN, plus some other key Master Inventory elements that are used in the MRP processes.

As noted on the screen, **INFORMATION IS AS OF END OF PREVIOUS MONTH**. It comes from the data stored on the MRP Data file during month-end processing. Changes made to Master Inventory elements following the end of the month will not update this information until the next month-end processing, when this data will be replaced with a new copy. The asterisks on selected elements will indicate if they are frozen or not.

There are a number of options available on this screen:

- [ENTER]** **CONTINUE** - Returns the user to the **MRP DATA (TABLE) INQUIRY MAIN MENU - MRP250**, (Pg. 158). This is a single screen inquiry.
- OPTION <9>** **EXIT TO MRP DATA MENU** - Returns the user to the **MRP DATA (TABLE) INQUIRY MAIN MENU - MRP250**, (Pg. 158).
- OPTION <20>** **PRINT TABLE YR 1** - Prints year 1 (months 1-12) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <21>** **PRINT TABLE YR 2** - Prints year 2 (months 13-24) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <22>** **PRINT TABLE YR 3** - Prints year 3 (months 25-36) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.

- OPTION <23> **PRINT ENTIRE TABLE** - Prints all 3 years (months 1-36) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <99> **EXIT TO MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the OPTION field, and press **[ENTER]** to continue.

It should be noted that the PRINT options are handled slightly differently in the MRP Data Inquiry processes than in other activities. When the Inventory Manager selects one of these options, the print will be generated, but he / she will remain on the same screen. In most other processes, the user returns to a menu or summary screen. Because of the amount of data to be viewed, the system will leave the user whether he / she was when the print was requested, in case the user needs to continue with his / her data review.

3.3.3 MRP DATA (TABLE) INQUIRY - PROJECTED ON HAND QUANTITIES - MRP252

When the Inventory Manager inputs OPTION <2> and a good NSN on the **MRP DATA (TABLE) INQUIRY MAIN MENU - MRP250**, (Pg. 158) the following screen will be presented.

08/31/92		LIS / MATERIAL REQUIREMENTS PLANNING						MRP252	
** MRP DATA (TABLE) INQUIRY - PROJECTED ONHAND QUANTITIES **									
NSN: 6130 01 294 7479		UI: EA CA: 63		MO/SYS: 55		MO/CAT: 55		APP-TO: ASR9	
MGT: 6		MRP REV PT: 5		D/O:		BORR:		LOAN:	
<u>MM-YY</u>	<u>SER</u>	<u>REP</u>	<u>SURV</u>	<u>DIF</u>	<u>DIS</u>	<u>CDIS</u>	<u>BIN</u>	<u>RTV</u>	<u>TOTAL</u>
09-92	2	2		3	2				9
10-92	2			3	4				9
11-92	2			3	4				9
12-92	2			3	4				9
01-93	4			1	4				9
02-93	4			1	4				9
03-93	4			1	4				9
04-93	6			1	2				9
05-93	6			1	2				9
									** MORE **
OPTION: __		ENTER - CONTINUE				1 - REPEAT FROM TOP			
20 - PRINT TABLE YR 1		22 - PRINT TABLE YR 3		9 - EXIT TO MRP DATA MENU					
21 - PRINT TABLE YR 2		23 - PRINT ENTIRE TABLE		99 - EXIT TO MRP MAIN MENU					

FIGURE 43
MRP DATA (TABLE) INQUIRY - PROJECTED ON HAND QUANTITIES

The screens for the **PROJECTED ON HAND QUANTITIES** option will show the balances that the MRP Data process predicts will be in each of 36 months in the future. These balances are based on the beginning balance, with demands applied, firm due-in transactions received as scheduled, and planned actions occurring as recommended and also being received based on the appropriate lead-time.

One point to remember about these projected quantities is that certain quantities will never change. Most of them are included because they are part of the "Total On Hand" quantity. For example:

SURVEY: Is never updated by any "planned" or "projected" action.

BIN: "Bin Inspection" is never updated by any "planned" or "projected" action. Even though the subsidiary record may have a due-in date, there is no guarantee of the condition or even the NSN of the returned items. Without this certainty, no mechanical decisions can be made about the items in this condition. Any requirements computations that include "Bin" items will be specifically flagged for Inventory Manager review and possible action.

RTV: "Recycle to Vendor" is never updated by any "planned" or "projected" action. Like the "Bin" items, there is not enough certainty about the items and their receipt to allow for mechanical decisions about them.

Again like "Bin" items, any requirements computations that include "RTV" items will be specifically flagged for Inventory Manager review and possible action.

BORROW: This quantity will be contained only in the header information, rather than as part of detailed quantity display. Like the "Bin" and "RTV," the process does not make any mechanical decisions on this quantity and specifically flags any generated requirements to ensure the Inventory Manager gives it some outside-the-system consideration.

LOAN: Same as for **BORROW**.

Each screen will present selected general information about the item plus 12 months of data; three screens are used to display the full range of data. After the first screen is displayed, the Inventory Manager simply presses **[ENTER]**, and the process will present the next screen of data. A "total" screen is not provided on this query.

The quantity fields here will never be negative -- if the stock level cannot support the demand (plus back orders), the demand quantity will be back ordered. Back order quantities are reflected only on the printed report.

Each screen includes the following options:

[ENTER] **CONTINUE** - Presents the next screen or, if the last screen has been displayed, returns the user to the **MRP DATA (TABLE)**
INQUIRY MAIN MENU - MRP250, (Pg. 158).

- OPTION <1> **REPEAT FROM TOP** - Returns the user to the first screen.
- OPTION <9> **EXIT TO MRP DATA MENU** - Returns the user to the **MRP DATA (TABLE) INQUIRY - MAIN MENU** - **MRP250**, (Pg. 158).
- OPTION <20> **PRINT TABLE YR 1** - Prints year 1 (months 1-12) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <21> **PRINT TABLE YR 2** - Prints year 2 (months 13-24) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <22> **PRINT TABLE YR 3** - Prints year 3 (months 25-36) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <23> **PRINT ENTIRE TABLE** - Prints all 3 years (months 1-36) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <99> **EXIT TO MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the OPTION field, and press **[ENTER]** to continue.

3.3.4 MRP DATA (TABLE) INQUIRY - PROJECTED MONTHLY DEMAND - MRP253

To view the **PROJECTED MONTHLY DEMAND - MRP253**, quantities, the Inventory Manager inputs OPTION <3> and a good NSN on the **MRP DATA (TABLE) INQUIRY MAIN MENU - MRP250**, (Pg. 158). The process will present the following screen.

08/31/92		LIS / MATERIAL REQUIREMENTS PLANNING					MRP253	
** MRP DATA (TABLE) INQUIRY - PROJECTED MONTHLY DEMAND **								
NSN: 6130 01 294 7479		UI: EA CA: 63		MO/SYS: 55		MO/CAT: 55		APP-TO: ASR9
MGT: 6		MRP REV PT: 5		D/O:		BORR:		LOAN:
<u>MM-YY</u>	<u>F/D</u>	<u>ROT</u>	<u>CDMN</u>	<u>OTHER</u>	<u>SCHED</u>	<u>ADD'L</u>	<u>CRO</u>	
09-92		2						
10-92	1	2						
11-92		1						
12-92	1	2						
01-93		2						
02-93		2						
03-93	1	2						
04-93		1						
05-93	1	2						
06-93		2						
07-93		2						
						** MORE **		
OPTION: __		ENTER - CONTINUE				1 - REPEAT FROM TOP		
20 - PRINT TABLE YR 1		22 - PRINT TABLE YR 3		9 - EXIT TO MRP DATA MENU				
21 - PRINT TABLE YR 2		23 - PRINT ENTIRE TABLE		99 - EXIT TO MRP MAIN MENU				

FIGURE 44
MRP DATA (TABLE) INQUIRY - PROJECTED MONTHLY DEMAND

This inquiry screen shows how the demand is predicted to occur in the future. The forecast process computes a monthly demand value, and this value is evenly spread, with consideration being given to whether the month has four or five weeks in it. The 5-week months will have higher values than the 4-week months.

The demand elements have different meanings, depending on whether the item is expendable or E&R:

F / D	Expendable:	Normal + Non-Normal Demand
	E&R :	Non-Normal (Outright) Demand
ROT	Expendable:	Not Applicable
	E&R :	Rotable Demand
CDMN	Expendable:	Not Applicable
	E&R :	Normal (Condemnation) Demand
OTHER	Expendable:	Field Demand for Category 2
	E&R :	Not forecast (T / C 66P - covered under "CRO" below)
SCHED	Expendable:	Not used this phase
	E&R :	Not used this phase
ADDL	Expendable:	From Additional Demand File (assumed to be Normal Demand)
	E&R :	From Additional Demand File (assumed to be Rotable Demand)

CRO Expendable: From Reserved Quantity on Master Inventory (spread over 36 months, weighted toward early months)

E&R : Same as Expendable

As on the other MRP Data inquiry screens, each screen will have general information about the item and will present 12 months of data.

Three screens will display all the monthly data, with a fourth screen presenting "Totals" from the previous three screens (a total for each year for each type of demand, plus a "grand total"). A minus sign will be used on any Additional Demand values that are decreases (most Additional Demand values will be increases).

An example of the "totals" screen is shown below.

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING						MRP253A
** MRP DATA (TABLE) INQUIRY - PROJECTED MONTHLY DEMAND **							
NSN: 6130 01 294 7479		UI: EA CA: 63		MO/SYS: 55	MO/CAT: 55	APP-TO: ASR9	
MGT: 6 MRP REV PT: 5		D/O:		BORR:	LOAN:		
<u>MM-YY</u>	<u>F/D</u>	<u>ROT</u>	<u>CDMN</u>	<u>OTHER</u>	<u>SCHED</u>	<u>ADD'L</u>	<u>CRO</u>
YR 1	5	22					
YR 2	5	21					
YR 3	5	22					
TOTAL	15	65					** END **

OPTION: __		ENTER - CONTINUE		1 - REPEAT FROM TOP			
20 - PRINT TABLE YR 1		22 - PRINT TABLE YR 3		9 - EXIT TO MRP DATA MENU			
21 - PRINT TABLE YR 2		23 - PRINT ENTIRE TABLE		99 - EXIT TO MRP MAIN MENU			

FIGURE 45

**MRP DATA (TABLE) INQUIRY - PROJECTED MONTHLY DEMAND
("TOTALS" SCREEN)**

Because of space constraints, there is no "by month" total of all demand on this screen. For E&R items, such a total is not meaningful. On the inquiry print, there is a "total by month" value shown; however, there are no yearly totals on the printed report for each type of demand, as is shown on the "totals" inquiry screen, again due to space limitations.

The options available on this screen are the same as for most of the other inquiry screens:

- [ENTER]** **CONTINUE** - Presents the next screen or, if the last screen has been displayed, returns the user to the **MRP DATA (TABLE) INQUIRY - MAIN MENU - MRP250**, (Pg. 158).
- OPTION <1> **REPEAT FROM TOP** - Returns the user to the first screen.
- OPTION <9> **EXIT TO MRP DATA MENU** - Returns the user to the **MRP DATA (TABLE) INQUIRY - MAIN MENU - MRP250**.
- OPTION <20> **PRINT TABLE YR 1** - Prints year 1 (months 1-12) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <21> **PRINT TABLE YR 2** - Prints year 2 (months 13-24) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <22> **PRINT TABLE YR 3** - Prints year 3 (months 25-36) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <23> **PRINT ENTIRE TABLE** - Prints all 3 years (months 1-36) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <99> **EXIT TO MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU - MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the OPTION field, and press **[ENTER]** to continue.

3.3.5 MRP DATA (TABLE) INQUIRY - PLANNED (FIRM) RECEIPTS - MRP254

The **PLANNED (FIRM) RECEIPTS - MRP254** inquiry screen will be displayed when the Inventory Manager selects OPTION <4> and inputs a good NSN on the **MRP DATA (TABLE) INQUIRY - MAIN MENU - MRP250**, (Pg. 158). The following screen will be shown.

```

08/31/92                LIS / MATERIAL REQUIREMENTS PLANNING                MRP254
      ** MRP DATA (TABLE) INQUIRY - PLANNED (FIRM) RECEIPTS **
NSN: 6130 01 294 7479   UI: EA CA: 63 MO/SYS: 55   MO/CAT: 55   APP-TO: ASR9
MGT: 6   MRP REV PT: 5           D/O:                BORR:                LOAN:
MM-YY      SERVICEABLE RECEIPTS      REPARABLE RECEIPTS
09-92                2
10-92                                1
11-92
12-92
01-93
02-93
03-93
04-93
05-92                                1
06-93                                1
                                ** MORE **
-----
OPTION:  ____          ENTER - CONTINUE          1 - REPEAT FROM TOP
20 - PRINT TABLE YR 1   22 - PRINT TABLE YR 3   9 - EXIT TO MRP DATA MENU
21 - PRINT TABLE YR 2   23 - PRINT ENTIRE TABLE 99 - EXIT TO MRP MAIN MENU
  
```

FIGURE 46
MRP DATA (TABLE) INQUIRY - PLANNED (FIRM) RECEIPTS

PLANNED RECEIPTS are those related to firm due-in records -- actions already in process, as opposed to those predicted as "projected." The receipts are divided between **SERVICEABLE** and **REPARABLE**, based on the type of due-in record:

SERVICEABLE	Due-In Acquisition	(A/D records)
	Inventory In Shops	(N records)
	Commercial Inventory In Shops	(G records)
	Advance Com'l Repair Due-In	(C records)
REPARABLE	Due-In Facility	(F records)

Bin Inspection ("I") and Recycle to Vendor ("H") records are not identified as "planned" receipts because their receipt cannot be predicted with very much certainty. Especially on the Bin Inspection records, it cannot even be predicted under what NSN they might be received.

As before, each screen shows the NSN general information and 12 months of data, with the full 36 months being covered by three screens. A fourth screen will present yearly "Totals" from the previous three screens, as shown below:

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING					MRP254A
** MRP DATA (TABLE) INQUIRY - PLANNED (FIRM) RECEIPTS **						
NSN:	UI:	CA:	MO/SYS:	MO/CAT:	APP-TO :	
MGT:	MRP REV PT:	D/O:	BORR:	LOAN :		
<u>MM-YY</u>	<u>SERVICEABLE RECEIPT</u>		<u>REPARABLE RECEIPT</u>			
YR 1	2		2			
YR 2			2			
YR 3			1			
TOTAL	2		5			
** END **						

OPTION: ____	ENTER - CONTINUE		1 - REPEAT FROM TOP			
20 - PRINT TABLE YR 1	22 - PRINT TABLE YR 3		9 - EXIT TO MRP DATA MENU			
21 - PRINT TABLE YR 2	23 - PRINT ENTIRE TABLE		99 - EXIT TO MRP MAIN MENU			

FIGURE 47

**MRP DATA (TABLE) INQUIRY - PLANNED (FIRM) RECEIPTS
("TOTALS" SCREEN)**

All data is display only, and the only options for the user are:

[ENTER] CONTINUE - Presents the next screen or, if the last screen has been displayed, returns the user to the **MRP DATA (TABLE) INQUIRY MAIN MENU - MRP250**, (Pg. 158).

OPTION <1> REPEAT FROM TOP - Returns the user to the first screen.

- OPTION <9> **EXIT TO MRP DATA MENU** - Returns the user to the **MRP DATA (TABLE) INQUIRY MAIN MENU** - **MRP250**, (Pg. 158).
- OPTION <20> **PRINT TABLE YR 1** - Prints year 1 (months 1-12) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <21> **PRINT TABLE YR 2** - Prints year 2 (months 13-24) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <22> **PRINT TABLE YR 3** - Prints year 3 (months 25-36) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <23> **PRINT ENTIRE TABLE** - Prints all 3 years (months 1-36) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <99> **EXIT TO MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the OPTION field, and press **[ENTER]** to continue.

3.3.6 MRP DATA (TABLE) INQUIRY - PROJECTED ACTIONS - MRP255

Inputting OPTION <5> on the **MRP DATA (TABLE) INQUIRY - MAIN MENU - MRP250**, (Pg. 158) plus a good NSN will cause the **PROJECTED ACTIONS - MRP255** inquiry screen to be shown. An example of this screen is depicted below.

```

08/31/92                LIS / MATERIAL REQUIREMENTS PLANNING                MRP255
      ** MRP DATA (TABLE) INQUIRY - PROJECTED ACTIONS **
NSN: 6130 01 294 7479   UI: EA CA: 63 MO/SYS: 55   MO/CAT: 55   APP-TO: ASR9
MGT: 6   MRP REV PT: 5           D/O:                BORR:                LOAN:
MM-YY      ACON      COML RPR      SHOP RPR      SERV RECEIPT      REP RECEIPT
09-92
10-92                        2
11-92
12-92                        2                        2
01-93                        2
02-93
03-93                        2
04-93
05-93
06-93
07-93
08-93                        ** MORE **
-----
OPTION:  __              ENTER - CONTINUE                1 - REPEAT FROM TOP
20 - PRINT TABLE YR 1   22 - PRINT TABLE YR 3          9 - EXIT TO MRP DATA MENU
21 - PRINT TABLE YR 2   23 - PRINT ENTIRE TABLE        99 - EXIT TO MRP MAIN MENU

```

FIGURE 48
MRP DATA (TABLE) INQUIRY - PROJECTED ACTIONS

The Requirements process will identify when replenishment actions should occur and will store them as PROJECTED ACTIONS in the MRP Data File. There are three types of possible replenishment actions:

- Acquisition** ==> Applies to both expendable and E&R items.
- Commercial Repair** ==> Applies to E&R items with a Repair Source Code of "030."
- Shop Repair** ==> Applies to E&R items with a Repair Source Code other than "030."

These "predicted" actions will be further predicted to be received and update the "PROJECTED" SERVICEABLE RECEIPT element. The predicted receipt time is based on the predicted month of the replenishment action plus the value of Procurement Lead-time (acquisition) or Repair Lead-time (repairs). The REPARABLE RECEIPT element will be updated based on "Projected" Due-In Facility quantities built from Rotable demand forecasts. The actual receipt will be predicted for the month of the demand plus the value of Issue and Return time. As with all receipts, the "PROJECTED" SERVICEABLE and REPARABLE RECEIPTS will actually affect the on-hand balances the month following the projected receipt.

Projected actions are kept separately from the "planned" ("in process") actions, because they will not become actual recommendations until the projected action month is the current month.

There are also a variety of Master Inventory element values that will allow the projections to continue but will stop the creation of an actual Requirement record for replenishment action by the Inventory Manager. These Master Inventory elements are covered under the section on Requirements computations.

This inquiry process displays the data on three 12-month screens plus a fourth "Totals" screen, which is shown below:

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING				MRP255A
** MRP DATA (TABLE) INQUIRY - PROJECTED ACTIONS **					
NSN: 6130 01 294 7479		UI: EA CA: 63 MO/SYS: 55		MO/CAT: 55	APP-TO: ASR9
MGT: 6 MRP REV PT: 5		D/O:		BORR:	LOAN :
<u>MM-YY</u>	<u>ACON</u>	<u>COML RPR</u>	<u>SHOP RPR</u>	<u>SERV RECEIPT</u>	<u>REP RECEIPT</u>
YR 1		4		4	2
YR 2					
YR 3					
TOTAL		4		4	2
** END **					

OPTION: __		ENTER - CONTINUE		1 - REPEAT FROM TOP	
20 - PRINT TABLE YR 1		22 - PRINT TABLE YR 3		9 - EXIT TO MRP DATA MENU	
21 - PRINT TABLE YR 2		23 - PRINT ENTIRE TABLE		99 - EXIT TO MRP MAIN MENU	

FIGURE 49
MRP DATA (TABLE) INQUIRY - PROJECTED ACTIONS
("TOTALS" SCREEN)

The same options as described in previous screens apply here:

- [ENTER]** **CONTINUE** - Presents the next screen or, if the last screen has been displayed, returns the user to the **MRP DATA (TABLE) INQUIRY MAIN MENU - MRP250**, (Pg. 158).
- OPTION <1> **REPEAT FROM TOP** - Returns the user to the first screen.
- OPTION <9> **EXIT TO MRP DATA MENU** - Returns the user to the **MRP DATA (TABLE) INQUIRY MAIN MENU - MRP250**, (Pg. 158).
- OPTION <20> **PRINT TABLE YR 1** - Prints year 1 (months 1-12) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <21> **PRINT TABLE YR 2** - Prints year 2 (months 13-24) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <22> **PRINT TABLE YR 3** - Prints year 3 (months 25-36) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <23> **PRINT ENTIRE TABLE** - Prints all 3 years (months 1-36) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <99> **EXIT TO MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU - MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the OPTION field, and press **[ENTER]** to continue.

3.3.7 MRP DATA (TABLE) INQUIRY - PROJECTED BUDGET ACTIONS - MRP256

If the Inventory Manager inputs OPTION <6> on the **MRP DATA (TABLE) INQUIRY MAIN MENU - MRP250**, (Pg. 158) and a good NSN, the process will display the **PROJECTED BUDGET ACTIONS - MRP256** inquiry screen to be shown. This screen is shown below.

```

09/22/92                LIS / MATERIAL REQUIREMENTS PLANNING                MRP256
      ** MRP DATA (TABLE) INQUIRY - PROJECTED BUDGET ACTIONS **
NSN: 6130 01 294 7479   UI: EA CA: 63 MO/SYS: 55   MO/CAT: 55   APP-TO: ASR9
MGT: 6   MRP REV PT: 5           D/O:           BORR:           LOAN:
MM-YY           ACON           COML RPR           SHOP RPR           DIRECT SHIP
09-92
10-92                                2
11-92
12-92
01-93                                2
02-93
03-93
04-93
05-93                                ** MORE **

-----
OPTION:  ____   ENTER - CONTINUE                                1 - REPEAT FROM TOP
20 - PRINT TABLE YR 1   22 - PRINT TABLE YR 3           9 - EXIT TO MRP DATA MENU
21 - PRINT TABLE YR 2   23 - PRINT ENTIRE TABLE 99 - EXIT TO MRP MAIN MENU
  
```

FIGURE 50
MRP DATA (TABLE) INQUIRY - PROJECTED BUDGET ACTIONS

The **PROJECTED BUDGET ACTIONS** information includes the replenishment information (acquisitions plus commercial and local shop repairs) from the **PROJECTED ACTIONS** (see previous screen examples), plus the **DIRECT SHIP** projections. The **DIRECT SHIP** information is a direct copy of the appropriate demand forecast element to the budget element. In the case of Category 2 items, the **DIRECT SHIP** values will show the field ("Other") demand. Items handled strictly as direct ship (FEDSTRIP / MILSTRIP or commercial) will only have values in **DIRECT SHIP**, and nothing in the replenishment data fields.

The budget information is stated in this query process strictly in units, not dollars. (These unit values will be used in a separate process under the "Budget" function to "dollarize" the budget projections.)

Each screen will present the budget predictions for 12 months. The Inventory Manager will continue to press "Enter" and will be presented with three screens of 12-month data and a fourth screen of "Total" information for each year plus a "grand" total (see screen example that follows).

```

09/22/92                LIS / MATERIAL REQUIREMENTS PLANNING                MRP256A
      ** MRP DATA (TABLE) INQUIRY - PROJECTED BUDGET ACTIONS **
NSN: 6130 01 294 7479   UI: EA CA: 63 MO/SYS: 55   MO/CAT: 55   APP-TO: ASR9
MGT: 6   MRP REV PT: 5           D/O:                BORR:                LOAN:

MM-YY           ACON           COML RPR           SHOP RPR           DIRECT SHIP
YR 1                                4
YR 2
YR 3
TOTAL                                4

                                                    ** END **
-----
OPTION:  ____   ENTER - CONTINUE                1 - REPEAT FROM TOP
20 - PRINT TABLE YR 1   22 - PRINT TABLE YR 3   9 - EXIT TO MRP DATA MENU
21 - PRINT TABLE YR 2   23 - PRINT ENTIRE TABLE 99 - EXIT TO MRP MAIN MENU

```

FIGURE 51

**MRP DATA (TABLE) INQUIRY - PROJECTED ACTIONS
("TOTALS" SCREEN)**

The options available to the Inventory Manager from each of the 12-month screens as well as the "totals" screen include:

[ENTER] **CONTINUE** - Presents the next screen or, if the last screen has been displayed, returns the user to the **MRP DATA (TABLE) INQUIRY MAIN MENU - MRP250**, (Pg. 158).

OPTION <1> **REPEAT FROM TOP** - Returns the user to the first screen.

- OPTION <9> **EXIT TO MRP DATA MENU** - Returns the user to the **MRP DATA (TABLE) INQUIRY MAIN MENU - MRP250**, (Pg. 158).
- OPTION <20> **PRINT TABLE YR 1** - Prints year 1 (months 1-12) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <21> **PRINT TABLE YR 2** - Prints year 2 (months 13-24) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <22> **PRINT TABLE YR 3** - Prints year 3 (months 25-36) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <23> **PRINT ENTIRE TABLE** - Prints all 3 years (months 1-36) of report LGI250 (MRP DATA [TABLE]); leaves user on the same screen.
- OPTION <99> **EXIT TO MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU - MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the OPTION field, and press **[ENTER]** to continue.

3.4 DEMAND HISTORY INQUIRY

For convenience purposes, additional inquiry access to Demand History information is provided for the Inventory Manager from the **MRP MAIN MENU - MRP200**, (Pg. 18). These inquiry processes will access the same data that is accessed under the Demand History inquiry option on the regular LIS Inventory Management **INQUIRIES MAIN MENU - INQ600**.

Besides the regular inquiry, there is an additional option for Demand History within the MRP inquiry processes that provides an alternative presentation capability -- small segments of the data can be viewed in graphics form.

3.4.1 DEMAND HISTORY INQUIRY - MAIN MENU - MRP290

OPTION <4> on the **MRP MAIN MENU - MRP200**, (Pg. 18) will provide access to the **DEMAND HISTORY INQUIRY MAIN MENU - MRP290**. From this menu, the Inventory Manager can select the inquiry format desired, either TABLE FORMAT or GRAPHICS FORMAT. The following screen illustrates the menu.

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING	MRP290
** DEMAND HISTORY INQUIRY - MAIN MENU **		

1 - TABLE FORMAT		
2 - GRAPHICS FORMAT		
9 - EXIT TO MRP MAIN MENU		
29 - SELECT FAST PATH EXIT		
99 - EXIT TO INV MGMT MAIN MENU		

ENTER OPTION: ____		
NSN: ____ _		

FIGURE 52
DEMAND HISTORY INQUIRY - MAIN MENU

The Inventory Manager must enter an OPTION and an NSN (unless selecting an "exit" option). The input NSN will be checked against the Master Inventory File and, as needed, the Delete/ Transfer (D&T) File.

- If the NSN is not on the Master Inventory File but is on the D&T File, a message will be returned identifying the D&T condition and the old and new NSN's. The Inventory Manager will need to change the input data to reflect the "to" NSN before he/she will be allowed to continue.
- If the NSN is not on the Master Inventory or the D&T File, an error message will be returned stating it is not on the file. The Inventory Manager must change the input data to a valid NSN.

The following details how each OPTION is processed:

- OPTION <1> **TABLE FORMAT** - Will display the first screen of **DEMAND HISTORY INQUIRY** - **MRP291**, (Pg. 188) data in table form for the input NSN.
- OPTION <2> **GRAPHICS FORMAT** - Will display the **DEMAND HISTORY INQUIRY GRAPHIC DISPLAY SELECTION MENU** - **MRP292**, (Pg. 191) for the user to select the particular segment and range of Demand History data to be displayed in graphics form.
- OPTION <9> **EXIT TO MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18).
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on "**FAST PATH FEATURE**" (Pg. 222) for details.

OPTION <99> **EXIT TO INV MGMT MAIN MENU** - Returns the user to the **INVENTORY MANAGEMENT MAIN MENU** (INV001).

Select the OPTION desired, input the OPTION number in the OPTION field, and press **[ENTER]** to continue.

3.4.2 DEMAND HISTORY INQUIRY - MRP291 (TABLE FORMAT)

NOTE : The Table Format query described here operates exactly like the inquiry available from the Inventory Management **INQUIRIES MAIN MENU** - INQ600.

When the Inventory Manager selects OPTION <1> and inputs a valid NSN on **DEMAND HISTORY INQUIRY MAIN MENU** - **MRP290**, (Pg. 185) the first screen will be displayed, showing the first 12 months of Demand History data. The following illustrates this screen.

08/31/92		NIS / MATERIAL REQUIREMENTS PLANNING					MRP291		
** DEMAND HISTORY INQUIRY **									

NSN: 4720 01 152 2668		UI: EA CA: 42 MO/SYS: 102 MO/CAT: 102 APP-TO: ASR8							
NORM		NON NORM		ROTABLE		OTHER		ISSUE	RECEIPT
<u>MM-YY</u>	<u>DEMAND</u>	<u>DEMAND</u>	<u>DEMAND</u>	<u>DEMAND</u>	<u>DEMAND</u>	<u>TRANS</u>	<u>TRANS</u>		
08-92									
07-92									
06-92	1					1			
05-92									
04-92	2					2			
03-92									
02-92									
01-92									1
12-91						1			1
11-91	3					1			
10-91									
09-91	2					1		** MORE **	

OPTION: __		ENTER - CONTINUE			20 - PRINT				
		1 - REPEAT FROM TOP			99 - EXIT TO DEMAND HISTORY MAIN MENU				

FIGURE 53
DEMAND HISTORY INQUIRY
(FIRST SCREEN)

This screen will reflect the NSN input, selected data from the NSN's Master Inventory record, and the most recent 12 months of demand history.

From this screen, the user may press **[ENTER]** two more times to view the next 12 months of demand history and then the last 12 months of demand history.

If the user then presses **[ENTER]**, the next screen will show summary totals for each year of demand, plus grand totals. The totals screen will look as follows:

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING					MRP291A
** DEMAND HISTORY INQUIRY **						

NSN: 4720 01 152 2668		UI: EA CA: 42 MO/SYS: 102 MO/CAT: 102 APP-TO: ASR8				

	NORM	NON NORM	ROTABLE	OTHER	ISSUE	RECEIPT
	<u>DEMAND</u>	<u>DEMAND</u>	<u>DEMAND</u>	<u>DEMAND</u>	<u>TRANS</u>	<u>TRANS</u>
YEAR 1	8				6	2
YEAR 2	1				1	
YEAR 3						
TOTAL	9				7	2
					** END **	

OPTION: __	ENTER - CONTINUE		20 - PRINT			
	1 - REPEAT FROM TOP		99 - EXIT TO DEMAND HISTORY MAIN MENU			

FIGURE 54
DEMAND HISTORY INQUIRY
("TOTALS" SCREEN)

From any of the four display screens, the Inventory Manager can select the following options:

- [ENTER]** CONTINUE - Presents the next screen or, if the last screen has been displayed, returns the user to the **DEMAND HISTORY INQUIRY MAIN MENU** - **MRP290**, (Pg. 185).
- OPTION < 1 > REPEAT FROM TOP - Returns the user to the first screen.
- OPTION <20> PRINT - Prints report LGI291 (DEMAND HISTORY INQUIRY) returns user to the **DEMAND HISTORY INQUIRY MAIN MENU** - **MRP290**, (Pg. 185).
- OPTION <99> EXIT TO DEMAND HISTORY MAIN MENU - Returns the user to the **DEMAND HISTORY INQUIRY MAIN MENU** - **MRP290**, (Pg. 185).

Select the OPTION desired, input the OPTION number in the OPTION field, and press **[ENTER]** to continue.

3.4.3 DEMAND HISTORY INQUIRY - GRAPHIC DISPLAY SELECTION MENU - MRP292

When the Inventory Manager selects OPTION <2> and inputs a valid NSN on **DEMAND HISTORY INQUIRY MAIN MENU** - **MRP290**, (Pg. 185) the **DEMAND HISTORY INQUIRY GRAPHIC DISPLAY SELECTION MENU** - **MRP292**, (Pg. 191) will be displayed. This screen identifies the NSN input on the previous menu and selected Master Inventory Record data values for that NSN, in addition to display options. The Inventory Manager can select the range and type of Demand History he / she wants to view in a graphics format.

An example of this menu screen follows.

```
08/31/92                LIS / MATERIAL REQUIREMENTS PLANNING                MRP292
                        ** DEMAND HISTORY INQUIRY **
                        ** GRAPHIC DISPLAY SELECTION MENU **
-----
NSN: 4720 01 152 2668   UI: EA CA: 42 MO/SYS: 102 MO/CAT: 102 APP-TO: ASR8
-----
      1 - 12 MONTH NORMAL DEMAND
      2 - 12 MONTH NON-NORMAL DEMAND
      3 - 12 MONTH ROTABLE DEMAND
      4 - 12 MONTH OTHER DEMAND

      5 - 36 MONTH NORMAL DEMAND
      6 - 36 MONTH NON-NORMAL DEMAND
      7 - 36 MONTH ROTABLE DEMAND
      8 - 36 MONTH OTHER DEMAND

      9 - EXIT TO DEMAND HISTORY MAIN MENU
     29 - SELECT FAST PATH EXIT
     99 - EXIT TO MRP MAIN MENU
-----
                        ENTER OPTION: ____
```

FIGURE 55**DEMAND HISTORY INQUIRY - GRAPHICS DISPLAY SELECTION MENU**

Other than OPTION, there are no input fields on this screen. Data entry in OPTION is required.

The Inventory Manager can select any of the following options:

- OPTION <1> **12 MONTH NORMAL DEMAND** - Will present **DEMAND HISTORY INQUIRY - 12 MONTH NORMAL DEMAND - MRP292A**, (Pg. 195) showing in graphic form the values from the most recent 12 months of Normal Demand on Demand History plus the value from Current Month Normal Demand.
- OPTION <2> **12 MONTH NON-NORMAL DEMAND** - Will present **DEMAND HISTORY INQUIRY - 12 MONTH NON-NORMAL DEMAND - MRP292A**, (Pg. 195) showing in graphic form the values from the most recent 12 months of Non-Normal Demand on Demand History plus the value from Current Month Non-Normal Demand..
- OPTION <3> **12 MONTH ROTABLE DEMAND** - Will present **DEMAND HISTORY INQUIRY - 12 MONTH ROTABLE DEMAND - MRP292A**, (Pg. 195) showing in graphic form the values from the most recent 12 months of Rotable Demand on Demand History plus the value from Current Month Rotable Demand.
- OPTION <4> **12 MONTH OTHER DEMAND** - Will present **DEMAND HISTORY INQUIRY - 12 MONTH OTHER DEMAND - MRP292A**, (Pg. 195) showing in graphic form the values from the most recent 12 months of Other Demand on Demand History plus the value from Current Month Other Demand.

- OPTION <5> **36 MONTH NORMAL DEMAND** - Similar to OPTION <1>, but will present **DEMAND HISTORY INQUIRY - 36 MONTH NORMAL DEMAND - MRP292B**, (Pg. 197) showing in graphic form the values of all 36 months of Normal Demand on Demand History plus the value from Current Month Normal Demand.
- OPTION <6> **36 MONTH NON-NORMAL DEMAND** - Similar to OPTION <2>, but will present **DEMAND HISTORY INQUIRY - 36 MONTH NON-NORMAL DEMAND - MRP292B**, (Pg. 197) showing in graphic form the values of all 36 months of Non-Normal Demand on Demand History plus the value from Current Month Non-Normal Demand.
- OPTION <7> **36 MONTH ROTABLE DEMAND** - Similar to OPTION <3>, but will present **DEMAND HISTORY INQUIRY - 36 MONTH ROTABLE DEMAND - MRP292B**, (Pg. 197) showing in graphic form the values of all 36 months of Rotable Demand on Demand History plus the value from Current Month Rotable Demand.
- OPTION <8> **36 MONTH OTHER DEMAND** - Similar to OPTION <4>, but will present **DEMAND HISTORY INQUIRY - 36 MONTH OTHER DEMAND - MRP292B**, (Pg. 197) showing in graphic form the values of all 36 months of Other Demand on Demand History plus the value from Current Month Other Demand.

- OPTION <9> **EXIT TO DEMAND HISTORY MAIN MENU** - Returns the user to the **DEMAND HISTORY INQUIRY MAIN MENU** - **MRP290**, (Pg. 185).
- OPTION <29> **SELECT FAST PATH EXIT** - Displays the FAST PATH FEATURE to access other Inventory Management functions. See separate section on “**FAST PATH FEATURE**” (Pg. 222) for details.
- OPTION <99> **EXIT TO MRP MAIN MENU** - Returns the user to the **MRP MAIN MENU** - **MRP200**, (Pg. 18).

Select the OPTION desired, input the OPTION number in the OPTION field, and press **[ENTER]** to continue.

3.4.3A DEMAND HISTORY INQUIRY - 12 MONTH ____ DEMAND - MRP292A

The following screen illustrates a typical graphics display that will be presented whenever OPTIONS <1> through <4> are selected.

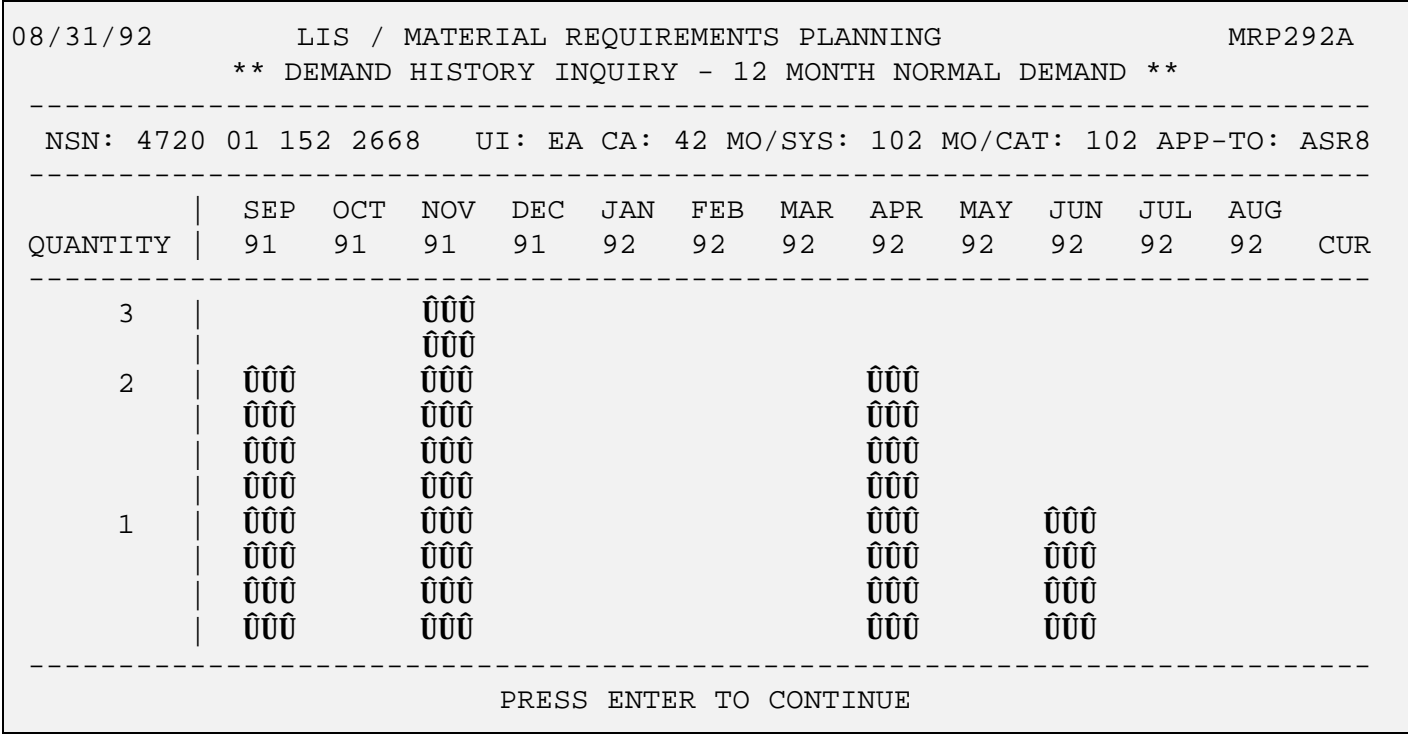


FIGURE 56
DEMAND HISTORY INQUIRY - GRAPHICS
EXAMPLE OF "12-MONTH INQUIRY"

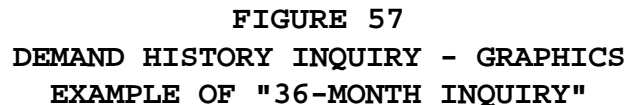
This screen will reflect the actual dates for the past 12 months, with CUR used to identify where the value for "Current Month..." is shown.

The values displayed under QUANTITY are true values related to the actual demand quantities from the Demand History elements.

This screen is display only. The only available option is:

[ENTER] **PRESS ENTER TO CONTINUE** - Returns the user to the
DEMAND HISTORY INQUIRY - GRAPHIC DISPLAY SELECTION
MENU - MRP292, (Pg. 191).

The following screen illustrates the type of graphics display that will be shown whenever OPTIONS <5> through <8> are selected.



Due to space limitations, this screen will use numbers 1 through 36 to reflect which month's data is being depicted, with "1" being the month just completed and "36" being 36 months ago. Like the "12 month" screens, CUR is used to identify where the value for "Current Month..." is shown. The values "1" through "10" displayed vertically are for relative scale purposes only and do not represent true values from the actual demand quantities in the Demand History elements. The intent with this display is to show long-term peaks, valleys, and trends.

Just like the 12-month screens, this screen is display only, and the only option available is:

[ENTER] **PRESS ENTER TO CONTINUE** - Returns the user to the
DEMAND HISTORY INQUIRY - GRAPHIC DISPLAY SELECTION
MENU - **MRP292**, (Pg. 191).

3.5 MATERIAL REQUIREMENTS PLANNING (MRP) PARAMETERS

The Material Requirements Planning (MRP) Parameters File records contain selected element values that are factored into the MRP computations. In some cases, they indicate default values to be used in computations before sufficient historical data is available for a better computation. There are records related to a specific NSN, plus a "system" record with default values for new NSN's in the system.

Many of the NSN-level elements normally are updated by the month-end process, and the new values are used in the next round of MRP computations.

The MRP Parameter function provides the capability to view the MRP Parameters and, with the appropriate Security Level, to manually update those values. The Security Level will restrict very severely the update capability to ensure it is done by knowledgeable persons who fully understand the impacts of the updates made.

Some additional data that is kept on the MRP Parameters File includes the following:

- Number of Impressions (for forms and instruction books)

- Requirement Restriction by Application-To Code

3.5.1 PARAMETER DATA MAINTENANCE - MAIN MENU - MRP220

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING	MRP220
** PARAMETER DATA MAINTENANCE - MAIN MENU **		

1 - MODIFY FORECAST PARAMETERS		
2 - INQUIRE FORECAST PARAMETERS		
3 - MODIFY SYSTEM PARAMETERS		
4 - INQUIRE SYSTEM PARAMETERS		
5 - RESET FORECAST		
6 - MODIFY NUMBER OF IMPRESSIONS		
7 - RESTRICT ACQUISITION BY APP TO		
9 - EXIT TO MRP MAIN MENU		
29 - SELECT FAST PATH EXIT		
99 - EXIT TO INV MGMT MAIN MENU		

ENTER OPTION: ____		
NSN: ____ _		(OPTIONS 1, 2, 5 & 6)
APP-TO: _____		(OPTION 7)

FIGURE 58
PARAMETER DATA MAINTENANCE - MAIN MENU

This menu screen is presented when the user selects the PARAMETER DATA MAINTENANCE option (OPTION <2>) from the **MRP MAIN MENU - MRP200**, (Pg. 18). The user's Security Level will determine which activities are available to him/her from this menu.

The inquiry options are available to most users, while access to the modify options is severely restricted because of the impact of parameter changes on the MRP processes.

Where NSN is a required field (OPTIONS 1, 2, 5, and 6), it must be on the Master Inventory File. If it is not, the process will check the Delete and Transfer (D&T) File. If a record is found, a message will be returned to the user to identify the D&T situation and what the new NSN is. The NSN in the data entry area will not be mechanically changed to the new NSN (like it is done in Inventory Manager Inquiries). It will be up to the user to make the appropriate changes or get out of the process.

3.5.2 PARAMETER DATA MAINTENANCE - MODIFY FORECAST PARAMETERS

```
08/31/92                LIS / MATERIAL REQUIREMENTS PLANNING                MRP221
      ** PARAMETER DATA MAINTENANCE - MODIFY FORECAST PARAMETERS **
-----
NSN: 5998 00 566 2959
-----
DFT UPPER  : 02      DFT LOWER: 02      FORECAST RESET: N
SETS LIMIT: 02      MSE LIMIT: 03
ERROR SMOOTHING CONSTANT: 0.100      RETURN YIELD RATE: 0.95
-----
                        FORECAST METHODS
-----
EXEC FORECAST: 01      ALT FCST 1   : 03      ALT FCST 2   : 02
SINGLE EXP SMOOTHING    'N' MONTH MOVING AVG      ADAPTIVE EXP SMOOTHING
ALPHA FACTOR  : 0.083
NBR OF MONTHS: 12
LEADING IND   : Y      LEADING IND   : Y      LEADING IND   : Y
-----
OPTION:  __  ENTER - CONTINUE                9 - EXIT TO PARMS DATA MAIN MENU
              1 - MODIFY EXEC FORECAST      29 - SELECT FAST PATH
              2 - MODIFY ALT FCST 1         99 - EXIT TO MRP MAIN MENU
              3 - MODIFY ALT FCST 2
```

FIGURE 59
PARAMETER DATA MAINTENANCE - MODIFY FORECAST PARAMETERS

If the user selects OPTION <1> on the **PARAMETER DATA MAINTENANCE MAIN MENU - MRP220**, (Pg. 200) and enters an acceptable NSN, this screen will be presented. It displays the parameter element values currently assigned to that NSN.

The process will display the applicable codes for the FORECAST METHODS, as well as a clear-text description of the codes. Additional elements may be displayed for each FORECAST METHOD. They will vary depending on the elements that apply to the particular Forecast Method value (for example, NBR OF MONTHS applies only to N MONTH MOVING AVERAGE and will be part of the display only when that method applies). From this screen, the user is allowed to update any of the elements listed.

If the user attempts to change one of the FORECAST METHODS, the process may ask for additional information, depending on the change being requested. The additional information will be requested via "windows" that the process will present. The example following shows an attempt to change the FORECAST METHOD from "01" (SINGLE EXPONENTIAL SMOOTHING, which requires an ALPHA FACTOR and LEADING INDICATOR flag) to "02" (ADAPTIVE EXPONENTIAL SMOOTHING, which requires only the LEADING INDICATOR flag).

In this example, the user requested OPTION <1> (MODIFY EXECUTIVE FORECAST), and the process presented the following screen:

FIGURE 60

Logistics And Inventory System
FAA Logistics Center

If the user entered "02" (ADAPTIVE EXPONENTIAL SMOOTHING) as the new EXECUTIVE FORECAST METHOD, the only additional information required would be the LEADING INDICATOR flag.

So, the process presented the following screen/window to request update (if needed) of the LEADING INDICATOR flag. The actual data that might be requested will depend on the FORECAST METHOD input.

PARAMETER DATA MAINTENANCE - MODIFY FORECAST PARAMETERS
(ADDITIONAL PARAMETER INFORMATION RELATED TO NEW FORECAST METHOD)

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When the window data is acceptable, the process will present the full screen again, as shown in the following:

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING		MRP221
** PARAMETER DATA MAINTENANCE - MODIFY FORECAST PARAMETERS **			

NSN: 5998 00 566 2959			

DFT UPPER : 02	DFT LOWER: 02	FORECAST RESET: Y	
SETS LIMIT: 02	MSE LIMIT: 03		
ERROR SMOOTHING CONSTANT: 0.100		RETURN YIELD RATE: 0.95	

FORECAST METHODS			

EXEC FORECAST: 02	ALT FCST 1 : 03	ALT FCST 2 : 02	
ADAPTIVE EXP SMOOTHING	'N' MONTH MOVING AVG	ADAPTIVE EXP SMOOTHING	
NBR OF MONTHS: 12			
LEADING IND : Y	LEADING IND : Y	LEADING IND : Y	

OPTION: __ ENTER - CONTINUE		9 - EXIT TO PARMS DATA MAIN	
MENU			
1 - MODIFY EXEC FORECAST		29 - SELECT FAST PATH	
2 - MODIFY ALT FCST 1		99 - EXIT TO MRP MAIN MENU	
3 - MODIFY ALT FCST 2			

FIGURE 62
PARAMETER DATA MAINTENANCE - MODIFY FORECAST PARAMETERS
(PENDING ADDITIONAL CHANGES [IF NEEDED])

This screen shows the desired revisions and will allow the user to input additional changes to the other elements on the screen, including the Alternate Forecast Methods. At this point, NO ACTUAL UPDATES TO THE FILES HAVE OCCURRED. As long as the user continues to request changes, this screen reflecting those desired changes will continue to be presented for additional updates. When the user has completed all the changes and presses the "Enter" key without having changed anything else on the screen, the system will present the following screen:

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING		MRP221A
** PARAMETER DATA MAINTENANCE - MODIFY FORECAST PARAMETERS **			

NSN: 5998 00 566 2959			

THE RECORD WILL BE UPDATED WITH THE FOLLOWING DATA			

DFT UPPER : 02	DFT LOWER: 02	FORECAST RESET: Y	
SETS LIMIT: 02	MSE LIMIT: 03		
ERROR SMOOTHING CONSTANT: 0.100	RETURN YIELD RATE: 0.95		

FORECAST METHODS			

EXEC FORECAST: 02	ALT FCST 1 : 03	ALT FCST 2 : 02	
	NBR OF MONTHS: 12		
LEADING IND : Y	LEADING IND : Y	LEADING IND : Y	

OPTION: __	ENTER - CONTINUE	9 - EXIT TO PARMS DATA MAIN MENU	
	1 - RESPECIFY DATA	29 - SELECT FAST PATH	
		99 - EXIT TO MRP MAIN MENU	

FIGURE 63

**PARAMETER DATA MAINTENANCE - MODIFY FORECAST PARAMETERS
(UPDATE VERIFICATION SCREEN)**

This screen provides the user the opportunity to view and verify all the changes he/she has requested before the file is actually updated.

If the user exits at this point, no changes will be made. Or he/she can use the RESPECIFY option, get a fresh original version of the screen data, and start the revisions over.

If the user elects to continue with the updates, he/she will press the "Enter" key, and the process will respond with a "window" on top of the screen that states the updates have been completed. An example of this screen and window follows:

PARAMETER DATA MAINTENANCE - MODIFY FORECAST PARAMETERS
(UPDATE COMPLETED WINDOW)

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3.5.3 PARAMETER DATA MAINTENANCE - INQUIRE FORECAST PARAMETERS

8/31/92	LIS / MATERIAL REQUIREMENTS PLANNING	MRP222
** PARAMETER DATA MAINTENANCE - INQUIRE FORECAST PARAMETERS **		

NSN: 5998 00 566 2959		

DFT UPPER : 02	DFT LOWER: 02	FORECAST RESET: Y
SETS LIMIT: 02	MSE LIMIT: 03	
ERROR SMOOTHING CONSTANT: 0.100		RETURN YIELD RATE: 0.95

FORECAST METHODS		

EXEC FORECAST: 01	ALT FCST 1 : 03	ALT FCST 2 : 02
SINGLE EXP SMOOTHING	'N' MONTH MOVING AVG	ADAPTIVE EXP SMOOTHING
ALPHA FACTOR : 0.083		
NBR OF MONTHS: 12		
LEADING IND : Y	LEADING IND : Y	LEADING IND : Y

OPTION: __	ENTER - CONTINUE	9 - EXIT TO PARMS DATA MAIN MENU
		29 - SELECT FAST PATH
		99 - EXIT TO MRP MAIN MENU

FIGURE 65

PARAMETER DATA MAINTENANCE - INQUIRE FORECAST PARAMETERS

This screen is displayed when the user selects OPTION <2> from the **PARAMETER DATA MAINTENANCE MAIN MENU - MRP220**, (Pg. 200) and enters an NSN that is on the file. The system will present this screen with the current values for the parameter elements for the input NSN.

The screen is similar to the Modify Forecast Parameters screen, except all the data elements are locked and no update is allowed.

3.5.4 PARAMETER DATA MAINTENANCE - MODIFY SYSTEM PARAMETERS

```

08/31/92                LIS / MATERIAL REQUIREMENTS PLANNING                MRP223
      ** PARAMETER DATA MAINTENANCE - MODIFY SYSTEM PARAMETERS **

-----
VAR LAW A : 1.25   VAR LAW B: 1.75   FORECAST RESET: Y
DFT UPPER : 02     DFT LOWER: 02
SETS LIMIT: 02     MSE LIMIT: 03
ERROR SMOOTHING CONSTANT: 0.100      RETURN YIELD RATE: 1.00
-----

                        FORECAST METHODS
-----
EXEC FORECAST: 01           ALT FCST 1   : 03           ALT FCST 2   : 02
SINGLE EXP SMOOTHING        'N' MONTH MOVING AVG        ADAPTIVE EXP SMOOTHING
ALPHA FACTOR : 0.083
NBR OF MONTHS: 12
LEADING IND  : Y           LEADING IND   : Y           LEADING IND   : Y
-----

OPTION:  __  ENTER - CONTINUE                9 - EXIT TO PARMS DATA MAIN MENU
          1 - MODIFY EXEC FORECAST          29 - SELECT FAST PATH
          2 - MODIFY ALT FCST 1             99 - EXIT TO MRP MAIN MENU
          3 - MODIFY ALT FCST 2

```

FIGURE 66

PARAMETER DATA MAINTENANCE - MODIFY SYSTEM PARAMETERS

Input of OPTION <3> on the **PARAMETER DATA MAINTENANCE - MAIN MENU - MRP220**, (Pg. 200) will cause this screen to display.

Entry of an NSN on the **PARAMETER DATA MAINTENANCE MAIN MENU - MRP220**, (Pg. 200) is not required or allowed.

The displayed screen shows the current default values that will be placed on a new Parameter record that is built during the MRP Data process. (The requirement to build a new Parameter record is usually due to a new NSN entering the system from File Maintenance Transaction Code (T / C) 02T or certain Action Codes for T / C 05R).

All the fields are available for entry and update. The entered data will be edited and additional data requested using similar screens and windows as shown under the Modify Forecast Parameters [single NSN] processes. Those screens and windows will not be repeated here.

If the entered data passes the edits, a screen will be presented showing all the changes that will be made and giving the user one last opportunity to revise the data further or stop any of the changes was being posted to the file. If the user elects to continue the update, the new values will be placed in the file for the system-level defaults.

Changes to the system parameters should be approached with **GREAT CAUTION**

3.5.5 PARAMETER DATA MAINTENANCE - INQUIRE SYSTEM PARAMETERS

```
08/31/92                LIS / MATERIAL REQUIREMENTS PLANNING                MRP224
      ** PARAMETER DATA MAINTENANCE - INQUIRE SYSTEM PARAMETERS **

-----
VAR LAW A : 1.25  VAR LAW B: 1.75  FORECAST RESET: Y
DFT UPPER : 02    DFT LOWER: 02
SETS LIMIT: 02    MSE LIMIT: 03
ERROR SMOOTHING CONSTANT: 0.100      RETURN YIELD RATE: 1.00
-----

                        FORECAST METHODS
-----
EXEC FORECAST: 01          ALT FCST 1   : 03          ALT FCST 2   : 02
SINGLE EXP SMOOTHING      'N' MONTH MOVING AVG      ADAPTIVE EXP SMOOTHING
ALPHA FACTOR : 0.083
                        NBR OF MONTHS: 12
LEADING IND   : Y          LEADING IND   : Y          LEADING IND   : Y
-----

OPTION:  __  ENTER - CONTINUE          9 - EXIT TO PARMS DATA MAIN MENU
                                           29 - SELECT FAST PATH
                                           99 - EXIT TO MRP MAIN MENU
```

FIGURE 67

PARAMETER DATA MAINTENANCE - INQUIRE SYSTEM PARAMETERS

The user can select OPTION <4> from the **PARAMETER DATA MAINTENANCE MAIN MENU - MRP220**, (Pg. 200) and this screen will be presented. Again, input of an NSN is not required or allowed because the record is the system-level default values.

The screen is like the Modify screen, except all elements are view only, no update allowed.

3.5.6 RESET FORECAST

This option (OPTION <5> from the **PARAMETER DATA MAINTENANCE - MAIN MENU - MRP220**, (Pg. 200)) is selected by the user when the MRP process appears to have gotten "off track", and he/she wants to have the system stop and recompute the Forecasted Demand values basically by starting over. There are several situations where the Forecast Reset flag is set internally. For example, certain Delete and Transfer situations will cause the flag to be reset.

When the user selects this option from the **PARAMETER DATA MAINTENANCE MAIN MENU - MRP220**, (Pg. 200) he / she is required to input an acceptable NSN. There is no update screen associated with this option. If the NSN is found on the file, the Forecast Reset flag is set at "Y," and the user is presented with a "window" on top of the MRP Parameters Main Menu verifying the successful update. (An example of this "window" follows).

[illegible]

FIGURE 68
PARAMETER DATA MAINTENANCE - FORECAST RESET

Similar to the MRP Parameter update capability, access to this update capability will be restricted to selected users.

3.5.7 PARAMETER DATA MAINTENANCE - MODIFY NUMBER OF IMPRESSIONS - MRP226

NUMBER OF IMPRESSIONS is applicable to those inventory items that are printed - forms and instruction books. This data element identifies the number of printing "operations" required for a single unit of issue. For example, a form that is carried in the inventory as "SH" (sheet), and is printed in a single color on one side with a single perforation would probably have "2" as the value for impressions. Budget and requirements actions will show both the outright quantity required as well as the number of impressions required. If there is no value in the file for a particular NSN, the value is assumed to be "1."

This option (OPTION <6> from the **PARAMETER DATA MAINTENANCE MAIN MENU - MRP220**, (Pg. 200)) provides a method for the user to update the value to be used for NUMBER OF IMPRESSIONS for a single NSN. When a good NSN is input, the process will display the current value for this element and allow the user to change it. The revised data will not change any existing records, but it will be used in future computations and reports.

An example of the update screen for this process follows.

```
08/31/92          LIS / MATERIAL REQUIREMENTS PLANNING          MRP226
  ** PARAMETER DATA MAINTENANCE - MODIFY NUMBER OF IMPRESSIONS **
-----
NSN: 0052 00 606 4001
-----

                        NUMBER OF IMPRESSIONS: 10____

-----
OPTION:  __    ENTER - CONTINUE          9 - EXIT TO PARMS DATA MAIN MENU
                                           29 - SELECT FAST PATH
                                           99 - EXIT TO MRP MAIN MENU
```

FIGURE 69
PARAMETER DATA MAINTENANCE - MODIFY NUMBER OF IMPRESSIONS

3.5.8 PARAMETER DATA MAINTENANCE - RESTRICT BY APP-TO - MRP227

This option will be used when higher management determines that, due to budget constraints or other criteria, certain Application-To systems will not be supported for an indefinite period. This constraint will be checked in the Requirements processes, and when an Application - To Code is flagged, the process will perform the normal MRP Data (Table) updates but will not write any Requirement records for Inventory Manager action on any items with the applicable Application-To Code. This includes acquisition and repair records and will affect both General and Aircraft programs.

This is a very powerful and DANGEROUS action to take, and, therefore, the access to this update is severely restricted.

The option is available as OPTION <7> from the **MAINTENANCE MAIN MENU - MRP220**, (Pg. 200).

The screen shown below is presented, showing the current "flag" setting for the input Application-To Code. The user will put in the desired update, which is limited to "Y" (yes) or "N" (no).

08/31/92	LIS / MATERIAL REQUIREMENTS PLANNING	MRP227
** PARAMETER DATA MAINTENANCE - RESTRICT BY APP-TO **		

APP-TO CODE: ASR9		

RESTRICT STATUS: N (Y/N)		

OPTION: __	ENTER - CONTINUE	9 - EXIT TO PARMS DATA MAIN MENU
		29 - SELECT FAST PATH
		99 - EXIT TO MRP MAIN MENU

FIGURE 70
PARAMETER DATA MAINTENANCE - RESTRICT ACQUISITION BY APP-TO

3.6 FAST PATH FEATURE

[illegible]

FIGURE 71
FAST PATH

The FAST PATH feature can be used for direct access to other processing screens or functions within the Inventory Management function without having to exit to a selection menu.

For example, an Inventory Manager might need to go to the Automated Procurement System (APS) to complete a purchase request initiated by processing a commercial acquisition Requirement record from the MRP Queue processes. To accomplish this, the user would input the appropriate OPTION for the FAST PATH feature (usually <29>) and then select the appropriate number for **PRC**. To process a particular Transaction Code (issue, adjustment, file maintenance, etc.), the user also has the option to key in NEXT TC/MOD, the NSN, and, as needed, the VOUCHER or CONTROL-NBR and press [**ENTER**].

4.0 REQUIREMENTS COMPUTATIONS (INTERNAL - BATCH)

This section defines the high-level processes, calculations, and parameters used in the Requirements portion of the Material Requirements Planning (MRP) batch function.

The Requirements process is designed to maintain the stock balance of the operating inventory at its optimum level. It looks at onhand balances, due-in quantities, and forecasted demand data. It also considers the (contingency) Safety Stock, which is the amount of stock maintained as a buffer to compensate for fluctuations in either forecast demand and/or lead-time. This analysis is used to establish the projected closing stock balances, showing what the stock levels would be if the projected demand occurred as predicted and there were no changes to the current due-in records. The system determines if the existing stock levels and due-in actions will be able to maintain the desired stock level.

On exchange and repair (E&R) items, the Requirements process considers the availability of serviceable and reparable assets to meet demand and repair needs and, if necessary, will recommend both repair and acquisition actions to support the projected demand.

The Requirements process also considers data such as shelf life limitations, quantity unit pack, and other rounding factors when the requirements recommendations are made.

It will also consider system-wide control elements, such as a temporary halt on acquisition actions for E&R items or a decision not to acquire items identified as certain Application - To codes.

The batch Requirements programs produce the following information:

- **Weekly** : MRP Queue records identifying current replenishment needs for:

- All expendable items
 - Repairs for E&R items

- **Monthly** : MRP Data (Table) information identifying:

- Current replenishment needs for:

- All expendable items
 - Repairs for E&R items
 - Acquisitions for E&R items

- Predicted future replenishment needs (monthly for the next 36 months)

A number of changes in approach were made between the old National Supply (NS) System and the new MRP function to provide more conservative computations and to help better manage smaller budget allocations. These changes are emphasized where appropriate.

4.1 PROCESSING SCHEDULE

The Requirements process runs each week, with special actions occurring when the weekly run coincides with an end-of-month cycle. In a regular weekly process, the only consideration is immediate replenishment requirements. In the monthly process, there is consideration for immediate replenishment requirements and also for future replenishment and budget needs (for the next 36 months) which are placed in the MRP Data (Table).

In addition, acquisition requirements for E&R items will be generated only in the monthly process. The weekly process on E&R items will only generate repair requirements.

Special Considerations at End-of-Month:

At the end of the month, when all monthly demand values are re-computed, the process will check each record closely to see if its stock position (Onhand Quantity plus Due-In Quantities) will support the demand until the next routine replenishment. If the item is "behind" (i.e., backorders will build up [if demand happens as projected] before a routine replenishment can be received), the process will try to "catch up" by adding the projected accumulated backorders into the replenishment computation. As a result, replenishment actions generated during the end-of-month processes may consider Due out Quantities greater than shown on the Master Inventory record. Also, Due-In Quantities may be less than shown on the Master Inventory record if Due-In Dates are past due (see [Section 4.2.4](#), ((Pg. 232))).

At the end of the month, the Inventory Manager may need to review Master Inventory balances and Due-In records, and check the MRP Table for that item to fully understand the rationale for the replenishment action.

4.2 EXPENDABLE ITEM REQUIREMENTS COMPUTATION

An "expendable item" is defined as an item with an Inventory Category other than 6, F, or 9. The following information details how requirements are computed for an expendable item.

4.2.1 EXCLUSIONS

If **any one** of the following conditions are found, no requirements will be computed for the item:

- Management Code = 2 or J

2 = Obsolete

J = No requirements or budget computations

NOTE : Management Code K (Compute budget only, no requirements computation or output) will not affect processing at this point. It will allow computations to continue for budget purposes, but will not write a requirements record on the MRP Queue.

- MRP Review Point frozen at zero
- Forecasted Demand = zero, no Additional Demand records, Due-Out Quantity = zero, and Reserved Quantity = zero
- Inventory Category = 7 or G

NOTE : While the Requirements process will not project requirements for these items, it will set up information for the budget projections by updating "Budget -Direct Ship" elements on the MRP Data (Table). These "Budget" values will be summarized into yearly totals and reported under the Budget process.

- Federal Supply Class (FSC) = 0000
(No requirements, no budget - Inventory Manager will react when requisitions begin to back order.)
- Federal Supply Class (FSC) = 0056
(No requirements, but will project budget [Impressions].)

4.2.2 DIRECT SHIP ITEMS

Values for projected direct ship demand (Category 2 "Other" and Commissioning Reserve Obligation [CRO] demand, or Category 7/G demand) will be moved directly into the Budget elements for Direct Ship on the MRP Data (Table) without going through any type of Requirements computations. For Category 2 items, stock acquisition computations will be based solely on Forecasted Demand, which represents only local (Normal / Non - normal) demand.

Exception:

On Category 7 / G items, the process will first consider any onhand balances before recording the demand in the Budget elements.

4.2.3 ECONOMIC ORDER QUANTITY (EOQ) COMPUTATION

When an Economic Order Quantity (EOQ) value is required in a Requirements computation, it will be computed using the following formula.

It should be noted that, in the previous National Supply (NS) system, the EOQ formula computed "EOQ Buy Months," while this formula computes the actual EOQ quantity. The EOQ quantity approach will normally produce a smaller, more conservative quantity.

The "cost to procure" and "holding cost" are updated periodically by cost studies.

4.2.3A COST TO PROCURE

The "cost to procure" provides consideration for the administrative costs of the replenishment action. The EOQ formula will use a different "cost to procure," depending on the replenishment source. For commercial items, the process will first compute the requirement using the "open market" value for "cost to procure." If the computed requirement value is \$25,000 or more, then the process will recompute the requirement using the higher "contract" value for "cost to procure."

Commercial open market (value less than \$25,000)

- Identified by Procurement Source Code (PSC) not equal A12, A75, Bxx, Fxx, G13, MPB, Nxx (except NNB), Sxx, ZNC
- Current value = \$165.58 (as of 9/92)

Commercial contract (value over \$25,000)

- Identified by PSC not equal A12, A75, Bxx, Fxx, G13, MPB, Nxx (except NNB), Sxx, ZNC
- Current value = \$719.54 (as of 9/92)

FEDSTRIP/MILSTRIP source

- Identified by PSC equal A12, A75, Bxx, Fxx, G13, MPB, Nxx (except NNB), Sxx, ZNC
- Current value = \$77.91 (as of 9/92)

4.2.3B HOLDING COST

"Holding cost" captures the relative cost of maintaining an item in stock in the warehouse. The holding cost for all items will be the same.

// **Current value = 14.5 per cent (as of 4/2/99)**

4.2.3C EOQ FORMULA

The formula for computing the Economic Order Quantity ("EOQ" in the formulas) is as follows:

$$\text{EOQ in units: } Q_u = C \sqrt{Y_u / V}$$

$$C = \sqrt{2P / I}$$

$$I = \text{Holding cost}$$

$$P = \text{Cost to procure (select according to PSC)}$$

$$Q_u = \text{Economic Order Quantity in units}$$

$$V = \text{Unit price (Standard Unit Price or Latest Procurement Price, whichever is larger)}$$

$$Y_u = \text{Annual requirements in units (i.e., Forecast Demand)}$$

4.2.3.1 EOQ LIMITATION

On most items, the " Q_u " (EOQ in units) is limited to no more than 3 years of stock (Forecast Demand [F/D] times 3). If the EOQ computation resulted in a number larger than " $F/D \times 3$," the values for EOQ will be adjusted to " $F/D \times 3$ " before it is used in the replenishment formula.

See **Section 4.2.9**, (Pg. 240) Adjustments to Requirement Quantity, for limitations on Category 2 acquisitions and other adjustments made to requirement quantities.

4.2.4 EXISTING DUE-IN RECORDS

Accurate Due-In Dates on existing Due-In records are **essential** to proper operation of the MRP function. During the Forecast Demand process, the Due-In records are reviewed and their receipt time is planned. The quantity is placed in the "Planned Receipt - Serviceable" or "Planned Receipt - Repairable" blocks of the MRP Data (Table), and at the appropriate time it is added to the Serviceable or Repairable Onhand Quantity on the MRP Data (Table).

If a Due-In Date is past, the MRP function can only assume that the items will be received immediately and will add the quantity into the **current** Serviceable Quantity for computation purposes.

The replenishment (MRP Queue) record will reflect the values considered in the replenishment computation.

If the replenishment record was generated at the end of the month, it might reflect a lesser Due-In quantity than is on the current Master Inventory (or than the Inventory Manager believes exists); the Inventory Manager should check the Due-In records to see if the Due-In Dates are past.

The Inventory Manager should not arbitrarily change Due-In Dates just to avoid a "past due" situation. Due-In Dates should only be updated with valid information.

If the Due-In Dates are not past, the various Due-In quantities will be placed in the MRP Data (Table) as follows:

FILE	FILE CODE	WHILE DUE IN ("PLANNED RECEIPT")			WHEN "RECEIVED							
		SERV	REP	ACR	SERV	REP	ACR	CDIS	DIA	DIF	DIS	
ACR	C	+		+	+	-	-					
ADI	A	+			+				-			
BIN	I*											
BORROW	P*											
CDIS	G	+			+			-				
DIA	D	+			+				-			
DIF	F		+			+				-		
DIS	N	+			+						-	
LOAN	M*											
RTV	H*											

*NO RECEIPT ACTIONS ARE PROJECTED FOR BIN, BORROW, LOAN, AND RTV SUBSIDIARY RECORDS. IT IS NOT POSSIBLE TO ACCURATELY PERDICT IF / WHEN THEST ITEMS WILL RETURN TO STOCK, NOR CAN THE RECEIPT CONDITION BE READILY ITENTIFIED.

4.2.5 EXPENDABLE REQUIREMENTS COMPUTATION (GENERAL INFORMATION)

The Requirements process will try to take replenishment action on an expendable item when:

$SERV < MRP \text{ Review Point} + (PLT \times AMD)$

AMD = Average Monthly Demand (Forecast Demand divided by 12) *

MRP Review

Point = From Master Inventory

PLT = Procurement Lead-time, from Master Inventory

SERV = Serviceable Quantity *

* From Master Inventory - If weekly computation

OR

Projected value,
from MRP Table - If "end-of-month" computation
or
If future month on MRP Table

4.2.6 FORMULA FOR EOQ CODE 9 AND INSURANCE ITEMS

Economic Order Quantity (EOQ) Code 9 on an item indicates that replenishment actions for that item will be limited to 12 months stock, rather than actually computing an EOQ replenishment action.

An "insurance item" has an Account Code of 6. Demand is not normally expected on such an item. It is an essential item, and its need is usually caused by unpredictable events. Replenishment on these items will also be limited to 12 months.

For EOQ Code 9 or Account Code 6 items, the following formula applies:

$$\text{Requirement Qty} = ([\text{PLT MO} + \text{Constant 12 Mo}] \times \text{AMD}) + \text{ADDL}_{\text{PLT}} + (\text{SS} + \text{CRO} + \text{DO}) - (\text{SERV} + \text{D/I})$$

Legend

ADDL _{PLT}	=	All Additional Demand quantities (if any) from the current time forward for the value of Procurement Lead-time
AMD	=	Average monthly demand (Forecasted Demand from Master Inventory divided by 12)
CRO	=	Commissioning Reserve Obligation (CRO) quantity, from MRP Table (12 months CRO Demand) CRO DOES NOT APPLY TO CATEGORY 2. (On Category 2, CRO is handled as "Direct Ship" demand.)
DO	=	Due-out Quantity *

D/I	=	Due-In Acquisition Quantity	*
PLT MO	=	Procurement Lead-time Months, from Master Inventory	
SERV	=	Serviceable Quantity	*
SS	=	Safety Stock Quantity, from Master Inventory	

* From Master Inventory - If weekly computation

OR

Projected value,

from MRP Table - If "end-of-month" computation

or

If future month on MRP Table

4.2.7 FORMULA FOR FORMS / INSTRUCTION BOOKS

Replenishment of forms and instruction books is also limited to 12 months supply. This limited replenishment approach helps ensure that the item is not overstocked in case it is revised and the former version is not usable.

Items considered "forms and instruction books" are identified as follows:

FSC = 0052 or 0056 **OR** FSC = 7530/7540/761 with PSC of APS or WPS

The requirement quantity for forms and instruction books is also expressed as "requirement impressions."

There is a value on the MRP Parameters file for "Number of Impressions" (per unit of issue) that is used to convert the quantity to impressions.

NOTE : Update capability for NOI (5 digits, no decimals) is available from the MRP Parameter menu.

When an Unit of Issue change is processed for an NSN in FSC 0052 or 0056 or in FSC 7530/7540/7610 with PSC of APS or WPS, the Inventory Manager should also update the "NOI" field, as necessary.

The formula for forms/instruction books replenishment is:

$$\text{Requirement Qty} = ([\text{PLT MO} + \text{Constant 12}] \times \text{AMD}) + \text{ADDL}_{\text{PLT}} + (\text{SS} + \text{DO}) - (\text{SERV} + \text{D/I})$$

$$\text{Requirement Impressions} = \text{Requirement Qty} \times \text{NOI}$$

Legend

ADDL _{PLT}	=	All Additional Demand quantities (if any) from the current time forward for the value of Procurement Lead-time	
AMD	=	Average monthly demand (Forecasted Demand from Master Inventory divided by 12)	
DO	=	Due-out quantity	*
D/I	=	Due-In Acquisition Quantity	*
PLT MO	=	Procurement Lead-time Months, from Master Inventory	

NOI	=	Number of impressions per unit of issue (from MRP Parameters file -- if blank, is assumed to be "1")	
SERV	=	Serviceable Quantity	*
SS	=	Safety Stock Quantity	*
* From Master Inventory	-	If weekly computation	
OR			
Projected value, from MRP Table	-	If "end-of-month" computation or If future month on MRP Table	

4.2.8 FORMULA FOR NORMAL EXPENDABLE ITEMS

If an item does not fit the criteria for Insurance/EOQ Code 9 or forms/instruction books, it will be handled using the EOQ computation.

Replenishment quantities for these items are determined as follows:

$$\text{Requirement Qty} = (\text{PLT MO} \times \text{AMD}) + \text{ADDL}_{\text{PLT}} + (\text{EOQ} + \text{SS} + \text{CRO} + \text{DO}) - (\text{SERV} + \text{D} / \text{I})$$

Legend

$$\text{ADDL}_{\text{PLT}} = \text{All Additional Demand quantities (if any) from the current time forward for the value of Procurement Lead-time}$$

AMD	=	Average monthly demand (Forecasted Demand from Master Inventory divided by 12)	
CRO	=	Commissioning Reserve Obligation quantity, from MRP Table (12 months CRO Demand)	
		CRO DOES NOT APPLY TO CATEGORY 2. (On Category 2, CRO is handled as "Direct Ship" demand.)	
DO	=	Due-out quantity	*
D/I	=	Due-In Acquisition Quantity	*
EOQ	=	Quantity from EOQ computation (see Section 4.2.3 on EOQ formula)	
PLT MO	=	Procurement Lead-time Months, from Master Inventory	
SERV	=	Serviceable Quantity	*
SS	=	Safety Stock Quantity, from Master Inventory	
* From Master Inventory	-	If weekly computation	
OR			
Projected value, from MRP Table	-	If "end-of-month" computation or If future month on MRP Table	

4.2.9 ADJUSTMENTS TO REQUIREMENT QUANTITY

Selected data on an item's Master Inventory record may cause the Requirements process to further modify the computed requirement quantity. In addition, certain adjustments are also made to provide a more "rounded" quantity. The following information identifies these additional considerations and adjustments.

4.2.9A CATEGORY 2 LIMITATION

For Category 2 items, management in the Supply Management Division has directed that the acquisition be limited further to no more than 6 months of demand. This limit is imposed as follows:

$$\text{Acquisition Limit} = F/D: 2 + D/O$$

("F/D" will also include any applicable Additional Demand quantity required during the lead-time.)

If the requirements computation resulted in a quantity larger than "F/D: 2 + D/O," the requirement quantity will be reduced to "F/D: 2 + D/O," before other adjustments are considered.

4.2.9B SHELF LIFE LIMITATIONS

If Shelf Life Months on the Master Inventory record is greater than zero, the requirement quantity will be limited to a quantity that will cover one-half the Shelf Life Months demand, not to exceed 12 months of demand.

4.2.9C QUANTITY UNIT PACK (QUP) ADJUSTMENT

The Quantity Unit Pack (QUP) Code and QUP Type Code elements on the Master Inventory record will be checked.

- If the QUP Code is 1 or the QUP Type Code is not 1 (Procurement Only) or 3 (Issues and Procurement), no adjustment will be made based on QUP. The process will go on to the final rounding step described in the next section.
- If the QUP Code is other than 1 and the QUP Type Code is 1 (Procurement Only) or 3 (Issues and Procurement), the requirement quantity will be rounded upward until the requirement quantity is an even multiple of the QUP Code quantity.
- If the quantity was adjusted due to a QUP, the final rounding process described in the next section will be skipped. If the quantity was not adjusted, the rounding process will continue.

4.2.9D FINAL ROUNDING STEP

This step will adjust the requirement quantities to a more conventional number, expecting that this will facilitate dealing with commercial sources. The requirement quantities will be adjusted as follows:

<u>Requirement Quantity</u>	<u>Adjust To Nearest :</u>	<u>Adjusting</u>
11 - 100	Multiple of 5	x2 = adjust down x3 = adjust up
101 - 200	Multiple of 10	x4 = adjust down x5 = adjust up
201 - 500	Multiple of 25	x12 = adjust down x13 = adjust up
501 or above	Multiple of 50	x24 = adjust down x25 = adjust up

For example:

<u>Computed Quantity</u>	<u>Rule for Adjusting</u>	<u>Adjusted Quantity</u>
12	Nearest multiple of 5	10 (x2 = down)
13	" " " "	15 (x3 = up)
17	" " " "	15 (x2 = down)
18	" " " "	20 (x3 = up)
212	Nearest multiple of 25	200 (x12 = down)
213	" " " "	225 (x13 = up)
237	" " " "	225 (x12 = down)
238	" " " "	250 (x13 = up)

4.2.10 EXPENDABLE REQUIREMENTS DATA IN MRP DATA (TABLE)

The weekly requirements run will only generate MRP Queue Requirements records. During the monthly process, the Requirements process will generate MRP Queue Requirements records and will also provide updates for the MRP Data (Table). The monthly process:

- Determines current replenishment requirements by looking at the current (end-of-month) Master Inventory record balances for generating MRP Queue Requirements records.
- Determines future (projected) replenishment requirements by looking at projected balances to determine if additional replenishment actions will be required in the future.

4.2.10A CURRENT REPLENISHMENT REQUIREMENTS

If the monthly process is looking at the current balances and determines replenishment action is indicated:

- (1) If Management Code = K (No Requirements, Budget Input Only), the process updates the appropriate "Projected" fields for the first period on the MRP Data (Table) only (does not write a Requirements record).
- (2) If the Application-To Table shows the App-To is on restriction for requirements, the process updates the appropriate "Projected" fields for the first period on the MRP Data (Table) only (does not write a Requirements record).

- (3) Otherwise, the process updates the appropriate "Projected" fields for the first period on the MRP Data (Table), and writes a Requirements record in the MRP Queue as detailed in a later section.

4.2.10B PROJECTED (FUTURE) REPLENISHMENT REQUIREMENTS

During the monthly MRP process, replenishment actions for the next 36 months will be predicted, by applying predicted forecast demands and updating onhand balances appropriately (on the MRP Data only). Each period will be examined to see if replenishment action would be indicated. The same formulas used to compute current actions will be used to determine replenishment quantities that would be needed if the forecast demand occurred as predicted.

Computations for future replenishment quantities will use the projected onhand, due-in, and due out quantities that are in the period where the replenishment action is projected to be required.

Beyond the first period, all projected replenishment actions will result in updates on the MRP Data (Table) only, with no actual MRP Queue Requirements records being generated. These projected actions form the basis for the Budget reports.

The following information identifies the elements on the MRP Data (Table) that are updated by the expendable portion of the Requirements process:

MRP DATA (TABLE) ELEMENTS

("Planned" = action in progress;

"Projected" = action predicted by MRP process)

PROJECTED ON HAND

SERV	Mechanically updated (+) for expendable items when DIA/ADI planned/projected to be received. See also Forecast Demand Section, 5.4 , (Pg. 310).
REP	- (No mechanical update for expendable - will carry Beginning Balance value forward)
SURV	- (No mechanical update for expendable - will carry Beginning Balance value forward)
DIF	- (No mechanical update for expendable - will carry Beginning Balance value forward)
DIS	Mechanically updated for expendable items if planned receipt of DIS Due-In record (+ Serv, - DIS)
CDIS	Mechanically updated for expendable items if planned receipt of CDIS Due-In record (+ Serv, - CDIS)
BIN	- (No mechanical update for expendable - will carry Beginning Balance value forward)
RTV	- (No mechanical update for expendable - will carry Beginning Balance value forward)
TOTAL	Sum of Serv, Rep, Surv, DIF, DIS, CDIS, BIN, RTV -updated when segments are updated

D/O (see Forecast Demand Section, 5.4)

PROJECTED DEMAND

F/D (see Forecast Demand Section, 5.4,),(Pg. 332)

ROT (see Forecast Demand Section, 5.4)

CDMN (see Forecast Demand Section, 5.4)

OTHER (see Forecast Demand Section, 5.4)

SCHED (see Forecast Demand Section, 5.4)

ADDL (see Forecast Demand Section, 5.4)

CRO (see Forecast Demand Section, 5.4)

TOTAL (see Forecast Demand Section, 5.4)

PLANNED RECEIPTS

SERV Sum of quantity from existing ADI/DIA records with Due-In Date within specified Month/Year

REP - (No mechanical update for expendable)

DIA Quantity from all firm ADI/DIA records not yet received plus Projected Acquisition Actions, from specified Month/Year of action forward to Projected Receipt time

ACR Does not normally apply to expendable, but will reflect quantity on any existing ACR records

PROJECTED ACTIONS

ACQN Projected requirements actions for the specified Month/Year (action Month/Year + PLT = Projected Receipt Month/Year)

COML REPAIR - (Does not apply to expendable)

SHOP REPAIR - (Does not apply to expendable)

SERV RECPT Projected Serviceable Receipt Quantity, based on Projected Acquisition actions (projected receipt time based on: action Month/Year + PLT)

REP RECPT - (Does not apply to expendable)

PROJECTED BUDGET

ACQN Projected requirements actions for the specified Month/Year

COML REPAIR - (Does not apply to expendable)

SHOP REPAIR - (Does not apply to expendable)

DIRECT SHIP See Forecast Demand [Section, 5.4](#), (Pg. 310).

TOTAL

ACQN : Sum of 1-12 months of Projected Actions on first page (Year 1); sum of 13-24 months of Projected Actions on second page (Year 2); sum of 25-36 months of Projected Actions on third page (Year 3)

COML REPAIR: - (Does not apply to expendable)

SHOP REPAIR: - (Does not apply to expendable)

DIRECT SHIP: See Forecast Demand **Section 5.4**, (Pg. 310).

4.2.11 MRP QUEUE RECORDS (REASON TEXT / DATA ELEMENTS)

Current replenishment requirements will be identified by Requirements records in the MRP Queue. The records will identify the different values used in computing the replenishment requirement. They will also include additional information, as needed, to alert the Inventory Manager to conditions that indicate further research may be needed. The Inventory Manager needs to pay close attention to the message (Reason Text) attached to the individual record.

4.2.11A REASON TEXT

The following information identifies the Reason Text that may be attached to an expendable item Requirements record and what it means:

- **ACQN RECORD FOR NSN WITH CSC-4 (CHECK QUANTITIES/ FREEZE RECORDS)**

ACQN RCD FOR NSN W/CSC-4 (CHECK QTYS/FREEZE RCDS) (MO-END PROJECTION)

This Reason Text will be attached to a Requirements record if the NSN is on Inventory Freeze (Current Status Code 4). The Inventory Manager will need to consider that the onhand and due-in quantities may not accurately reflect the item's stock position. Transactions on the freeze file will indicate what the true quantities are, especially if there are unplanned receipts.

The Inventory Manager can utilize the "recompute" capability on the MRP Queue to test the effect of onhand/due-in quantity changes on the requirement quantity.

- **REQUIREMENT RECORD FOR SECONDARY - CHECK OTHER SUB/PREF NSN**

REQUIREMENT RCD FOR SECONDARY - CHK OTHER SUB/PREF NSN (MO-END PROJECT)

This Reason Text will be used when the NSN with the replenishment requirement is a secondary item. The mechanized MRP Queue system will not allow the Inventory Manager to actually generate a replenishment of the secondary item. It will allow the Inventory Manager to view the corresponding Substitute and Interchangeability (S&I) record to verify there are no errors in it (i.e., the S&I record actually exists, etc.). Further information on handling records like these is contained in the section on the MRP Queue.

- **ACQN RCD - CHECK OTHER QUANTITIES (BORR/LOAN/BIN
INSP/RECYCLE/SURVEY)**
**ACQN RCD - CHK OTHER QTYS (BORR/LOAN/BIN/RTV/SURV) (MO-END
PROJECTION)**

This Reason Text will be attached to the Requirements record if any of the following quantities are greater than zero:

- Borrowed
- Loaned
- Bin Inspection
- Recycle to Vendor
- Available for Survey

The detail display of the Requirements record will show the values of all these Master Inventory record quantities.

It was determined that the outcome of these actions cannot be predicted with any reasonable accuracy. The Inventory Manager may have additional information that will indicate to them how these quantities should be factored into the replenishment decision.

All consideration for these quantities must be done manually. The Inventory Manager can utilize the "recompute" capability on the MRP Queue to test the effect of onhand/due-in quantity changes on the requirement quantity.

- **ACQUISITION RECORD**
ACQUISITION RECORD (MO-END PROJECTION)

If none of the conditions listed previously were found, the Requirements record will be assigned this Reason text.

4.2.11B DATA ELEMENTS IN REQUIREMENTS RECORD

When a Requirements record for an expendable item is written to the MRP Queue, it will include the element values that went into the requirements computation, which can be viewed on the detail screens within the MRP Queue processes. The data elements that will be included are as follows:

ACTION INDICATOR = "Yes/No" toggle on summary screen only;
automatic update by the system (identifies
Inventory Manager has viewed the detail
Requirements record)

ADDITIONAL DEMAND
QUANTITY = Sum of quantities in Additional Demand
records considered in computation

APPLICATION-TO CODE = From Master Inventory

BIN INSPECTION
QUANTITY = From Master Inventory

BORROWED QUANTITY = From Master Inventory

BREAK DATE	= Process Date when record was created [internal element]
CATEGORY/ACCOUNT CODE	= From Master Inventory
DESCRIPTION	= From Master Inventory
# DUE-IN ACQUISITION QUANTITY	= From Master Inventory [weekly] or MRP Data (Table) [monthly]
DUE-OUT QTY	= From Master Inventory [weekly] or MRP Data (Table) [monthly]
ECONOMIC ORDER QUANTITY CODE	= From Master Inventory
FORECASTED DEMAND	= From Master Inventory
ITEM MANAGER CODE	= From Master Inventory
LATEST PROCUREMENT PRICE	= From Master Inventory
LOANED QUANTITY	= From Master Inventory
NSN	= NSN with requirement quantity
NSN SUFFIX	= blank (no requirements are computed for F&E items)

NUMBER OF IMPRESSIONS	= From MRP Parameters [internal element]
ORIGINAL NSN/SUFFIX	= same as "NSN"
PRIORITY CODE	= Constant '5' [internal element]
PROCESS DATE	= Date when the record was created or last updated
PROCESS TIME	= Time when the record was created or last updated
PROCUREMENT LEAD-TIME	= From Master Inventory
PROCUREMENT SOURCE CODE	= From Master Inventory
QUANTITY UNIT PACK CODE	= From Master Inventory
QUANTITY UNIT	
	PACK TYPE = From Master Inventory
QUEUE STATUS	= M2 (Acquisition) [internal element]
REASON CODE	= Translated to clear text (See previous paragraph)

RECYCLE TO VENDOR (RTV) QUANTITY	= From Master Inventory
REQUIREMENT COST	= Computed: Requirement Quantity x Price (larger of Standard Unit or Latest Procurement Price)
REQUIREMENT IMPRESSIONS	= Computed: Requirement Quantity x Number of Impressions (NOI)
REQUIREMENT QUANTITY	= Computed requirement quantity
RESERVED QUANTITY	= Value on Master Inventory used in monthly Forecast Demand process to determine CRO values laid onto MRP Data (Table); values from 12 months on MRP Data (Table) added together to come up with "CRO" used in formulas [both weekly and monthly]
SAFETY STOCK QUANTITY	= From Master Inventory
# SERVICEABLE QUANTITY	= From Master Inventory [weekly] or MRP Data (Table) [monthly]

SHELF LIFE MONTHS	= From Master Inventory
STANDARD UNIT PRICE	= From Master Inventory
SUBSTITUTE AND INTERCHANGEABILITY (S&I) CODE	= From Master Inventory
SURVEY QUANTITY	= From Master Inventory
TYPE PRICE CODE	= From Master Inventory
UNIT OF ISSUE	= From Master Inventory
USER IDENTIFIER	= Program ID (if record just created) or identifier for person who performed the last update on the record [internal element]

The values in these elements may be affected by Due-In records with past due Due-In Dates. In the monthly process, Serviceable Quantity will normally also reflect a decrease due to projected demand.

4.3 EXCHANGE AND REPAIR (E&R) REQUIREMENTS COMPUTATION

An "exchange and repair (E&R) item" is defined as Inventory Category 6 or F.

4.3.1 EXCLUSIONS

If **any one** of the following conditions are found, no requirements will be computed for the item:

- Management code = 2, B, or J
 - 2 = Obsolete
 - B = Outright only, refuse rotables.
 - J = No requirements or budget computations

NOTE : Management Code K (Compute budget only, no requirements computation or output) and the system-level halt on E&R acquisition actions will not affect any processing at this point. They will allow this computation to continue for budget purposes, but will not put out an MRP Queue Requirements record.

- MRP Review Point frozen at zero
- Forecasted Demand and 12-Month Rotable Demand = zero, no Additional Demand records, Due-Out Quantity = zero, and Reserved Quantity = zero

4.3.2 EXISTING DUE-IN RECORDS

Accurate Due-In Dates on existing Due-In records for E&R items are **essential** to proper operation of the MRP function, like they are for expendable items. During the Forecast Demand process, the Due-In records are reviewed and their receipt time is projected. The quantity for Inventory In Shops (local shops), Commercial Inventory In Shops, Advance Commercial Repair, and Due-In Acquisition records are placed in the "Planned Receipt - Serviceable" blocks of the MRP Data (Table). At the appropriate time they are added to the Serviceable Onhand Quantity on that table.

The Due-In Facility record quantities are placed in the "Planned Receipt - Repairable" blocks of the MRP Data (Table), and added to the Repairable Onhand Quantity in the appropriate month.

If any Due-In Date is past, the MRP function can only assume that the stock will be received immediately and will add the quantity into the appropriate Onhand Quantity for computation purposes.

The replenishment (MRP Queue) record will reflect the values considered in the replenishment computation. If the replenishment record reflects a lesser due-in quantity or greater onhand quantity than is on the current Master Inventory (or than the Inventory Manager believes exists), the Inventory Manager should check the Due-In Dates to see if they are past.

The Inventory Manager should not arbitrarily change Due-In Dates just to avoid a "past due" situation. Due-In Dates should only be updated with valid information.

The following chart identifies how the various Due-In quantities are placed in the MRP Data (Table) :

FILE	FILE CODE	WHILE DUE IN			WHEN "RECEIVED						
		("PLANNED RECEIPT")									
		SERV	REP	ACR	SERV	REP	ACR	CDIS	DIA	DIF	DIS
ACR	C	+		+	+	-	-				
ADI	A	+			+				-		
BIN	I*										
BORROW	P*										
CDIS	G	+			+			-			
DIA	D	+			+				-		
DIF	F		+			+				-	
DIS	N	+			+						-
LOAN	M*										
RTV	H*										

*NO RECEIPT ACTIONS ARE PROJECTED FOR BIN, BORROW, LOAN, AND RTV SUBSIDIARY RECORDS. IT IS NOT POSSIBLE TO ACCURATELY PERDICT IF / WHEN THEST ITEMS WILL RETURN TO STOCK, NOR CAN THE RECEIPT CONDITION BE READILY ITENTIFIED.

4.3.3 E&R REQUIREMENTS COMPUTATION (GENERAL INFORMATION)

The Requirements process will try to take replenishment action on an E&R item when:

$SERV < MRP \text{ Review Point} + (RLT \times AMDR)$

AMDR = Average Monthly Rotable Demand (sum of Rotable Demand values divided by 12) *

MRP Review

Point = From Master Inventory

RLT = Repair Lead-time, from Master Inventory

SERV = Serviceable Quantity *

* From Master Inventory - If weekly computation
OR

Projected value,

from MRP Table - If "end-of-month" computation
or
If future month on MRP Table

When the Requirements process identifies that a replenishment need exists on an Inventory Category Code 6 or F item, it will first try to satisfy the need through repair, provided the reparable assets are available.

If sufficient assets are not available to fill the repair pipeline, an acquisition may also be generated (monthly process only -- during the monthly process, the process will check for an acquisition requirement each time it checks for a repair requirement.) Some basic approaches for E&R items are as follows:

- EOQ will not be used to compute E&R acquisition, repair, or budget requirements. The EOQ Code should be 9; however, the key is the Inventory Category being 6 or F, not the value in the EOQ Code.
- The MRP Review Point replaces the previous Repair Review Point and Acquisition Review Point.
- Any Additional Demand quantities are assumed to be rotatable demand for E&R items.
- Repair Level and Acquisition Level computations do not include consideration for the new Additional Demand elements.
- Acquisition requirements will be generated only during the monthly process, while repair requirements will be produced in both the weekly and monthly processes.

4.3.4 FORMULA FOR REPAIR REQUIREMENTS COMPUTATION

The same formula will apply whether the repair source is commercial (Repair Source Code 030) or local/AVN shops (Repair Source Code other than 030).

The following details some special approaches being used:

- Safety Stock: The process will use the Safety Stock Quantity from the Master Inventory, unless it is "1." If it is "1," the process will compute the actual value. If the value computes to a decimal less than 1, the process will use the computed decimal in the computation.
- Decimals: During the computation, the process will carry all decimals as they occur in the repair formula (Average Monthly Demand Rotable [AMDR], [Annual Demand Outright {ADO} + Commissioning Reserve Obligation {CRO}]/3, computed Safety Stock). All rounding will be done at the end (x.4 = round up, x.3 = round down).
- Availability of Repairable Assets: Whenever a repair requirement is computed, it will always be checked against available repairable assets (including those in Advance Commercial Repair). If no repairable assets are available, the process will not write a Requirements record for repair. The recommended repair requirement will never be more than the number of available repairable assets.

The formula used in computing repair requirements is as follows:

$$\text{REPAIR QUANTITY} = [(\text{RLT MO} + 4) \times \text{AMDR}] + \text{ADDL}_{\text{RLT}+4} + [(\text{ADO} + \text{CRO})/3] + (\text{SS} + \text{DO}) - (\text{SERV} + \text{DIS} + \text{CDIS} + \text{DIA} + \text{ACR})$$

If the Repair Quantity is less than or equal to zero, no repair action is required. If the Repair Quantity is greater than zero, the process will check the Repair Quantity against available repairable assets.

NET REPAIR QUANTITY = (REP - ACR) - REPAIR QUANTITY

If the Net Repair Quantity is greater than or equal to zero, there are sufficient assets to support the entire Repair Quantity, and the Repair Quantity will be placed in the Requirements record as the recommended quantity.

If the Net Repair Quantity is less than zero, there are not enough assets uncommitted to support the full Repair Quantity. The Repair Quantity will be reduced to the number of available assets (shown by "REP - ACR"). If the result of "REP-ACR" is zero, no assets are available at all and no repair Requirements record will be written.

Legend

ACR	=	Commercial Repair Advance Due-In Quantity	*
ADDL _{RLT+4}	=	All Additional Demand quantities (if any) from the current time forward for the value of Repair Lead-time plus 4 months (shop load factor)	
ADO	=	Annual Demand Outright (Forecasted Demand)	*
AMDR	=	Average Monthly Demand Rotable (12-Month Rotable Demand divided by 12)	*
CDIS	=	Commercial Inventory In-Shop Quantity	*

CRO	=	Commissioning Reserve Obligation Quantity (33% of Reserved Quantity); values from 12 months "CRO" on MRP Data (Table) added together	
DIA	=	Due-In Acquisition Quantity	*
DIS	=	Inventory In-Shop Quantity (local/AVN shop & FED/MIL)	*
DO	=	Due-out Quantity	*
NET REPAIR QUANTITY	=	Computed repair quantity for which reparable assets are available	
REP	=	Reparable Onhand Quantity	*
REPAIR QUANTITY	=	Total computed repair quantity before asset availability check	
RLT MO	=	Repair Lead-time Months, from Master Inventory	
SERV	=	Serviceable Onhand Quantity	*
SS	=	Safety Stock Quantity, from Master Inventory	

* From Master Inventory - If weekly computation
OR

Projected value,
from MRP Table - If "end-of-month" computation

or
If future month on MRP Table

4.3.5 FORMULA FOR ACQUISITION REQUIREMENTS COMPUTATION

When the Requirements process runs during a monthly cycle and completes the repair requirements computations, it will then also determine if an acquisition action is required. If the cycle being processed is a weekly cycle, the acquisition computation will not be done.

Because acquisitions for E&R items are only computed monthly, the values for elements used in the computation will primarily come from MRP Data (Table) information.

The following defines the formula used in computing acquisition requirements:

$$\text{Acquisition Qty} = \frac{\text{ADR} + \text{ADDL}_{12\text{mo}}}{12/\text{RC}} + (\text{ACQ} + \text{ADO} + \text{CRO}) - (\text{SERV} + \text{REP} + \text{DIF} + \text{DIS} + \text{CDIS} + \text{DIA})$$

If the result of this computation is greater than zero, then that result is the Acquisition Quantity.

If the result is less than or equal to zero, no acquisition action is required and no Requirements record will be written.

Legend

ACQ	=	Annual Condemnation Quantity (sum of 12 months' Normal Demand); from MRP Data (Table)
ADDL _{12mo}	=	All Additional Demand quantities (if any) from the current time forward 12 months; from MRP Data (Table)
ADO	=	Annual Demand Outright (Forecasted Demand); from MRP Data (Table)
ADR	=	Annual Demand Rotable (12-Month Rotable Demand); summed up from MRP Data (Table)
CDIS	=	Commercial Inventory In-Shops Quantity; from MRP Data (Table)
CRO	=	Commissioning Reserve Obligation Quantity (33% of Reserved Quantity); values from 12 months "CRO" on MRP Data (Table) added together
DIA	=	Due-In Acquisition Quantity; from MRP Data (Table)
DIF	=	Due-In Facility Quantity; from MRP Data (Table)
DIS	=	Inventory In-Shop Quantity (local/AVN shop & FED/MIL); from MRP Data (Table)
RC	=	Repair Cycle (Issue and Return Time + Repair Lead-time [months]; from Master Inventory)

REP = Reparable Quantity; from MRP Data (Table)

SERV = Serviceable Quantity; from MRP Data (Table)

4.3.6 ADJUSTMENTS TO REQUIREMENT QUANTITY

Unlike the expendable items, there are no further adjustments to the requirement quantity because of QUP Codes, "rounding," or any other reason.

4.3.7 E&R REQUIREMENTS DATA IN MRP DATA (TABLE)

The weekly requirements run will only generate MRP Queue Requirements records. During the monthly process, the Requirements process will generate MRP Queue Requirements records and will also provide updates for the MRP Data (Table). The monthly process:

- Determines current replenishment requirements by looking at the current (end-of-month) Master Inventory record balances for generating MRP Queue Requirements records.
- Determines future (projected) replenishment requirements by looking at projected balances to determine if additional replenishment actions will be required in the future.

In both the weekly and monthly processes, the Requirements process cannot project to repair more reparable assets than are projected to be available -- the computed repair requirements will be reduced to the number of available reparable assets. This check also considers the number of reparable assets that are already committed to repair procurement requests (Advance Commercial Repair [ACR] quantity).

4.3.7A CURRENT REPLENISHMENT REQUIREMENTS

If the process is looking at the current balances and determines replenishment action is indicated:

- (1) If Management Code = K, it updates the appropriate "Projected" fields for the first period on the MRP Data (Table) only (does not write a Requirements record).
- (2) If the Application-To Table shows the App-To is on restriction for requirements, it updates the appropriate "Projected" fields for the first period on the MRP Data (Table) only (does not write a Requirements record).
- (3) Otherwise, it updates the appropriate "Projected" fields for the first period on the MRP Data (Table), and writes a Requirements record in the MRP Queue as detailed in a later section.

4.3.7B PROJECTED (FUTURE) REPLENISHMENT REQUIREMENTS

During the monthly MRP process, replenishment actions for the next 36 months will be predicted, by applying predicted forecast demands and updating onhand balances appropriately (on the MRP Data only). Each period will be examined to see if replenishment action would be indicated. The same formulas used to compute current requirements will be used to determine replenishment quantities that would be needed if the forecast demand occurred as predicted.

The following information identifies the elements on the MRP Data (Table) that are updated by the E&R portion of the Requirements process:

PROJECTED ON HAND

- DIA/ADI planned/projected to be received (+ SERV, - DIA/ADI)
- DIS/CDIS planned/projected to be received (+ SERV, - DIS/CDIS)
- ACR planned to be received (+ SERV, - ACR, - REP)

See also Forecast Demand **Section, 5.4**, (Pg. 310)

- DIF planned/projected to be received (+ REP, - DIF)

Mechanically updated (-) for E&R items when:

- Local Shop/Commercial repair projected (-REP, + DIF)
- ACR planned to be received (- REP, - ACR, + SERV)

SURV - (No mechanical update for E&R - will carry Beginning Balance value forward)

DIF Mechanically updated (+) for E&R items when:

- DIF planned/projected to be received

DIS Mechanically updated (+) for E&R items if:

- Local Shop repair projected (+ DIS, - REP)

Mechanically updated (-) for E&R items if:

- Planned/projected receipt of DIS Due-In record (+ SERV, - DIS)

CDIS Mechanically updated (+) for E&R items if:

- Commercial repair projected (+ CDIS, - REP)

Mechanically updated (-) for E&R items if:

- Planned/projected receipt of CDIS Due-In record (+ SERV, - CDIS)

BIN - (No mechanical update for E&R - will carry Beginning Balance value forward)

RTV - (No mechanical update for E&R - will carry Beginning Balance value forward)

TOTAL Sum of SERV, REP, SURV, DIF, DIS, CDIS, BIN, RTV -updated when segments are updated

D/O (see also Forecast Demand **Section, 5.4**, ((Pg. 310))).

PROJECTED DEMAND

F/D (see also Forecast Demand **Section, 5.4**, Pg. 310))

ROT (see also Forecast Demand Section, 5.4)

CDMN (see also Forecast Demand Section, 5.4)

OTHER (see also Forecast Demand Section, 5.4)

SCHED (see also Forecast Demand Section, 5.4)

ADDL (see also Forecast Demand Section, 5.4)

CRO (see also Forecast Demand Section, 5.4)

TOTAL (see also Forecast Demand Section, 5.4)

PLANNED RECEIPTS

SERV Sum of quantity from existing ADI/DIA/DIS/CDIS/ACR records with Due-In Date within specified Month/Year

REP Sum of quantity from existing DIF records with Due-In Date within specified Month/Year

- DIA Quantity from all firm ADI/DIA records not yet received plus Projected Acquisition Actions, from specified Month/Year of action forward to Projected Receipt time
- ACR Quantity from all ACR records not yet received, from specified Month/Year of action forward to Projected Receipt time

PROJECTED ACTIONS

- ACQN Projected acquisition requirements actions for the specified Month/Year (action Month/Year + PLT = Projected Receipt Month/Year)
- COML REPAIR On a commercially repaired item (Repair Source Code [RSC] = 030), projected repair requirements actions for the specified Month/Year (action Month/Year + RLT = Projected Receipt Month/Year)
- SHOP REPAIR On a local shop / AVN repaired item (Repair Source Code [RSC] other than 030), projected repair requirements actions for the specified Month / Year (action Month/Year + RLT = Projected Receipt Month / Year)
- SERV RECPT Projected Receipt Quantity from projected ACQN / COML REPAIR / SHOP REPAIR (projected receipt time based on: action Month/Year + PLT [ACQN] or action Month / Year + RLT [COML / SHOP REPAIR])

REP RECPT (see also Forecast Demand [Section 5.4](#), (Pg. 310)).

PROJECTED BUDGET

ACQN Projected acquisition requirements actions for the specified Month/Year

COML REPAIR Projected commercial repair requirements actions for the specified Month/Year

SHOP REPAIR Projected local shop/AVN repair requirements actions for the specified Month/Year

DIRECT SHIP - (No mechanical update for E&R)
(see also Forecast Demand [Section 5.4](#), (Pg. 310)).

TOTAL

ACQN : Sum of 1-12 months of Projected ACQN Actions on first page (Year 1); sum of 13-24 months of Projected ACQN Actions on second page (Year 2); sum of 25-36 months of Projected ACQN Actions on third page (Year 3)

COML REPAIR: Sum of 1-12 months of Projected COML REPAIR Actions on first page (Year 1); sum of 13-24 months of Projected COML REPAIR Actions on second page (Year 2); sum of 25-36 months of Projected COML REPAIR Actions on third page (Year 3)

SHOP REPAIR: Sum of 1-12 months of Projected SHOP REPAIR Actions on first page (Year 1); sum of 13-24 months of Projected SHOP REPAIR Actions on second page (Year 2); sum of 25-36 months of Projected SHOP REPAIR Actions on third page (Year 3)

DIRECT SHIP: - (No mechanical update for E&R)
(see also Forecast Demand **Section 5.4**, ((Pg. 310))).

4.3.8 MRP QUEUE RECORDS (REASON TEXT/DATA ELEMENTS)

Current replenishment requirements (both repairs and acquisitions) will be identified by Requirements records in the MRP Queue. The records will identify the different values used in computing the replenishment requirement. They will also include additional information, as needed, to alert the Inventory Manager to conditions that indicate further research may be needed. The Inventory Manager needs to pay close attention to the message (Reason Text) attached to the individual record.

4.3.8A REASON TEXT

Because multiple records may be written for a single NSN, similar Reason Text was developed for both acquisition and repair Requirements records.

The following information identifies the Reason Text that may be attached to an E&R item Requirements record and what it means:

- **ACQN RECORD FOR NSN WITH CSC-4 (CHECK QUANTITIES/ FREEZE RECORDS)**

**ACQN RCD FOR NSN W/CSC-4 (CHECK QTYS/FREEZE RCDS)
(MO-END PROJECTION)**

**REPAIR RECORD FOR NSN WITH CSC-4 (CHECK QUANTITIES/FREEZE
RECORDS)**

**REPAIR RCD FOR NSN W/CSC-4 (CHECK QTYS/FREEZE RCDS)
(MO-END PROJECTION)**

The appropriate Reason Text will be attached to an acquisition or repair Requirements record if the NSN is on Inventory Freeze (Current Status Code 4). The Inventory Manager will need to consider that the onhand and due-in quantities may not accurately reflect the item's stock position. Transactions on the freeze file will indicate what the true quantities are, especially if there are unplanned receipts.

The Inventory Manager can utilize the "recompute" capability on the MRP Queue to test the effect of onhand/due-in quantity changes on the requirement quantity.

- **REPAIR RCD - CHECK OTHER QTYS (BORR / LOAN / BIN INSP /
RECYCLE / SURVEY)**

**REPAIR RCD - CHK OTHER QTYS (BORR / LOAN / BIN / RTV / SURV) (MO
- END PROJECT'N)**

**ACQN RCD - CHECK OTHER QUANTITIES (BORR / LOAN / BIN INSP /
RECYCLE / SURVEY)**

ACQN RCD - CHK OTHER QTYS (BORR / LOAN / BIN / RTV / SURV) (MO - END PROJECTION)

One of these Reason Texts will be applied if a Requirements record was written and any of the following quantities are greater than zero:

Borrowed	Recycle to Vendor
Loaned	Available for Survey
Bin Inspection	

The detail display of the Requirements record will show the values of all these Master Inventory record quantities.

It was determined that the outcome of these actions cannot be predicted with any reasonable accuracy. The Inventory Manager may have additional information that will indicate to them how these quantities should be factored into the replenishment decision.

- **REPAIR RCD - CHECK SHELF LIFE VALUE, MUST CONSIDER MANUALLY**

REPAIR RCD - CHK SHELF LIFE, MUST CONSIDER MANUALLY (MO-END PROJECT'N)

ACQN RCD - CHECK SHELF LIFE VALUE, MUST CONSIDER MANUALLY

ACQN RCD - CHK SHELF LIFE, MUST CONSIDER MANUALLY (MO-END PROJECTION)

Most E&R items do not have any shelf life considerations. However, if the item is coded with Shelf Life Months greater than zero, the situation will be specifically identified for the Inventory Manager to determine the impact of shelf life (if any) on the requirement quantity recommendation.

- **REPAIR RECORD**
REPAIR RECORD (MO-END PROJECTION)
ACQUISITION RECORD
ACQUISITION RECORD (MO-END PROJECTION)

If none of the conditions listed previously were found, the Requirements record will be assigned this Reason text.

4.3.8B DATA ELEMENTS IN REQUIREMENTS RECORD

When a Requirements record for an E&R item is written to the MRP Queue, it will include the element values that went into the requirements computation, which can be viewed on the detail screens within the MRP Queue processes. The data elements that will be included are as follows:

- | | |
|---------|--|
| ** ACQ | = Annual Condemnation Quantity (sum of 12 months' Normal Demand (forecast), from "COND" on MRP Data [Table]) |
| # * ACR | = Commercial Repair Advance Due-In Quantity; from Master Inventory [weekly] or MRP Data (Table) [monthly] |

ACTION INDICATOR = "Yes/No" toggle on summary screen only;
automatic update by the system (identifies
Inventory Manager has viewed the detail
Requirements record)

*** ADDITIONAL DEMAND
QUANTITY = Sum of quantities in Additional Demand records
(if any) considered in computation (will be either
ADDL_{RLT+4} or ADDL_{12mo})

APPLICATION-TO CODE = From Master Inventory

AVERAGE WEIGHTED
PRICE = From Master Inventory

BIN INSPECTION
QUANTITY = From Master Inventory

BORROWED QUANTITY = From Master Inventory

BREAK DATE = Process Date when record was created
[internal element]

CATEGORY/ACCOUNT
CODE = From Master Inventory

*** COMMERCIAL INVENTORY
IN-SHOPS QUANTITY = From Master Inventory [weekly] or MRP Data
(Table) [monthly]

DESCRIPTION	= From Master Inventory
# *** DUE-IN ACQUISITION QUANTITY (Table) [monthly]	= From Master Inventory [weekly] or MRP Data
# *** DUE-IN FACILITY QUANTITY (Table) [monthly]	= From Master Inventory [weekly] or MRP Data
* DUE-OUT QUANTITY	= From Master Inventory [weekly] or MRP Data (Table) [monthly]
ESTIMATED REPAIR COST	= From Master Inventory
*** FORECASTED DEMAND	= From Master Inventory ("ADO" in E&R formulas)
# *** INVENTORY IN-SHOPS QUANTITY	= From Master Inventory [weekly] or MRP Data (Table) [monthly]
** ISSUE-AND-RETURN TIME	= From Master Inventory (part of "Repair Cycle")
ITEM MANAGER CODE	= From Master Inventory

	LATEST PROCUREMENT PRICE	= From Master Inventory
	LOANED QUANTITY	= From Master Inventory
*	NET REPAIR QUANTITY	= From computation - adjusted REPAIR QUANTITY after check against available reparable assets (considering also reparable commitments to ACR quantity). Will be equal to or less than REPAIR QUANTITY. Is placed in REQUIREMENT QUANTITY on MRP Queue Requirements record.
	NSN	= NSN with requirement quantity
	NSN SUFFIX	= blank (no requirements are computed for F&E items)
	ORIGINAL NSN/SUFFIX	= same as "NSN"
	PRIORITY CODE	= Constant '5' [internal element]
	PROCESS DATE	= Date when the record was created or last updated
	PROCESS TIME	= Time when the record was created or last updated

PROCUREMENT
LEAD-TIME

= From Master Inventory

PROCUREMENT SOURCE
CODE

= From Master Inventory

QUANTITY UNIT
PACK CODE

= From Master Inventory (for informational
purposes only -no mechanical consideration
on E&R items)

QUANTITY UNIT
PACK TYPE

= From Master Inventory (for informational
purposes only - no mechanical consideration
on E&R items)

QUEUE STATUS

= Internal element, used to differentiate between
Acquisition and Repair records (M2
(Acquisition) or M3 (Repair))

REASON CODE

= Translated to clear text (see previous
paragraph for actual text)

RECYCLE TO VENDOR
(RTV) QUANTITY

= From Master Inventory

REPAIR LEAD-TIME

= From Master Inventory (on Acquisition, part of
"Repair Cycle")

*	REPAIR QUANTITY	= From computation - gross repair requirements quantity before check against available reparable assets and any reparable commitments to ACR. Is placed in TOTAL REPAIR QUANTITY on MRP Queue Requirement record.
	REPAIR SOURCE CODE	= From Master Inventory
# ***	REPARABLE QUANTITY	= From Master Inventory [weekly] or MRP Data (Table) [monthly]
	REQUIREMENT COST	= Computed: REQUIREMENT QUANTITY x Price (Acquisition : larger of STANDARD UNIT PRICE or LATEST PROCUREMENT PRICE; Repair : ESTIMATED REPAIR COST)
	REQUIREMENT QUANTITY	= Computed requirement quantity (see also NET REPAIR QUANTITY)
***	RESERVED QUANTITY	= Value on Master Inventory used in monthly Forecast Demand process to determine CRO values laid onto MRP Data (Table); values from 12 months on MRP Data (Table) added together to come up with "CRO" used in formulas [both weekly and monthly] DUE TO

**SPACE LIMITATIONS, IS NOT DISPLAYED
ON REQUIREMENTS DETAIL SCREENS**

**	SAFETY STOCK QUANTITY	= From Master Inventory
# ***	SERVICEABLE QUANTITY	= From Master Inventory [weekly] or MRP Data (Table) [monthly]
***	SHELF LIFE MONTHS	= From Master Inventory(manual consideration)
	AVERAGE WEIGHTED PRICE	= From Master Inventory
	SUBSTITUTE AND INTERCHANGEABILITY (S&I) CODE	= From Master Inventory
	SURVEY QUANTITY	= From Master Inventory
*	TOTAL REPAIR QUANTITY	= See REPAIR QUANTITY
***	TWELVE MONTH ROTABLE DEMAND	= From Master Inventory [weekly] or summed up from MRP Data (Table) [monthly]
	TYPE PRICE CODE	= From Master Inventory

UNIT OF ISSUE = From Master Inventory

USER IDENTIFIER = Program ID (if record just created) or identifier for person who performed the last update on the record [internal element]

* = Applies to Repair only

** = Applies to Acquisition only

*** = Applies to both Repair and Acquisition

= The values in these elements may be affected by Due-In records with past due Due-In Dates. In the monthly process, Serviceable Quantity will normally also reflect a decrease due to projected demand.

5.0 FORECAST DEMAND PROCESSES (INTERNAL - BATCH)

The forecasting process in the previous supply system operated under an "order point" method of replenishment. It provided a single forecasting method (Single Exponential Smoothing), with no means to mechanically track the accuracy of the forecast. There also was no means of reporting extreme variances in demand, when compared to predicted levels.

Like the previous processes, the new MRP Forecast Demand process applies only to operating NSN's (not Category 9/no NSN Suffix).

The new process provides for three simultaneous forecasting methods to be running on each NSN at a time. The primary method is called the "Executive" method, with "Alternate 1" and "Alternate 2." The Executive Forecast Method is the only method that actually generates updates to the Master Inventory record and that is used to project future needs on the MRP Data (Table). The other two methods are used to compare and evaluate their forecasting results against the Executive Forecast Method and against actual demand experience. If one of the Alternate Forecast Methods consistently projects a better forecast than the Executive, it will be reported to the Inventory Manager, who may want to consider changing the Executive Forecast Method to one of the Alternates.

A total of 9 different Forecast Methods are available for selection as the Executive and Alternate Forecast Methods (as detailed in [Section 5.5](#), ((Pg. 331)) Forecast Methods).

Much of the information used for the Forecast Demand process is from the MRP Parameters record for the particular NSN. The results of many of the computations in this process are stored on the MRP Parameters record for use in the next monthly process. The MRP Parameters record is discussed in Section 5.2, MRP Parameters Record.

The actual forecasting may be done on more than one type of demand. This is true for exchange and repair (E&R) items, where, for example, the forecast for outright demand is done separately from the forecast for rotatable demand.

This process will also take the forecast values and apply them to the 36 months in the MRP Data (Table). Future processes will consider Equipment Population changes via the "Leading Indicators" application flag.

5.1 PROCESSING SCHEDULE

The Forecast Demand process runs during the monthly LIS cycle. It runs immediately after the Current Month Demand values have been "rolled over" into the Demand History values on the Master Inventory record. It also runs prior to the Requirements process, so Requirements are computed with the latest data available.

5.2 MRP PARAMETERS RECORD

Each NSN has its own "MRP Parameters" record, which contains information used by the Forecast Demand process. In addition, there is a "system" level MRP Parameters record that identifies the "default" methods and values to be established for any new items entering the system.

This record will track the three Forecast Methods applicable to the NSN. The methods may be changed at any time by altering the appropriate "Parameters" record. (The online inquiry and update processes for the MRP Parameters records are covered in Section 3.5 of this User Guide.)

The MRP Parameters record also stores the forecasting errors and tracks the levels that identify "out of tolerance" conditions on forecast values (Mean Squared Error, Demand Filter Trip, etc.). In addition, there are also counters associated with the error values. On each Forecast Method, this process will track the accuracy of the forecast as compared to actual occurrences. The counters on each Alternate Method will be updated if it appears that the particular Alternate Method has done a better job of forecasting than the Executive Method. If an Alternate Method is better three months* in a row, a notice (Review Reason Notice) will be generated to the Inventory Manager. The Inventory Manager may want to consider changing the primary forecasting method for that NSN.

* "Three" is the current value for the MRP Parameters record element called "MSE [Mean Squared Error] Counter Limit." The monthly counters on each NSN's MRP Parameters that track the accuracy of each different Forecast Methods are updated and compared each month to this "limit." When one or more of the individual counters exceed the limit, the particular Alternate Forecast Method will be reported as better than Executive Forecast Method. This "limit" value is modifiable.

The MRP Parameters record also has a "reset" flag called "Forecast Reset." This flag is often set mechanically by selected File Maintenance or Adjustment actions (like certain Delete and Transfer actions), but it may also be set manually by the Inventory Manager. Setting this flag will cause the system to go back and begin the forecasting process again with an average of the last 12 months actual demand. The Inventory Manager may want to do this when his/her forecast appears to be "biased" (badly affected by isolated extreme highs or lows in demand activity). This reset will further smooth the forecast and help get it back into a more reasonable range.

An element called "Number of Impressions" is also carried on the MRP Parameters record for Forms and Instruction Books only. It identifies the number of printing actions required on a single Unit of Issue. It is used in Requirements and Budget activities to express the required quantities in "Impressions."

5.3 PROCESSING STEPS

This section describes the different steps and computations that are used to determine the new Forecast Demand value.

5.3.1 " SETUP" STEPS ("NORMALIZING")

Initially, the process performs some calculations on the Demand History and identifies a baseline for the past history. This baseline is then used in comparison steps later in the process.

5.3.1A DETERMINE NUMBER OF WEEKS

The "Number of Weeks" values are used for "normalizing" the demand in each month. Each processing month contains either 4 or 5 weeks. This information is available on the system's Cycle Table.

5.3.1B DETERMINE NUMBER OF MONTHS

This step determines what value to use for "Number of Months" whenever Average Monthly Demand is computed.

If the NSN is new and there is no MRP Parameter record for that NSN or the Forecast Reset flag = Y, the process will compute the average using the last 12 months of actual demand (Normal and Non-normal for expendable items; Non-normal and Rotable for E&R). If the item has been in the system less than a year (Months-In-System less than 12), the process will use the value in Months-In-System to compute the average. (Months-In-System will always be at least "1.")

5.3.1C "NORMALIZE" DEMAND HISTORY VALUES

The previous forecasting processes did not consider that some processing months contained four weeks, while other months contained five weeks. The new process provides consideration for the number of weeks in the applicable processing schedule by "normalizing" the demand values.

This step will "normalize" the Demand History values in each of the last 12 months (or less, if the NSN has been in system less than 12 months). It converts all "5-week" months of demand to "4-week" values so that they are more comparable.

Later, when the projected demand is rolled into the 36-month MRP Data (Table), that process will consider whether the applicable month is 4 weeks or 5 weeks and "de-normalize" the projected demand value accordingly.

For example, if it is assumed that the demand in Month 1 was 66 and in Month 2, it was 82, it would appear that demand had increased. However, if the demand is "normalized":

	# of Weeks	Demand History	"Normalized" Demand
Month 1	4	66	66
Month 2	5	82	65.6
Difference		+16	- 0.4

The "normalized" values show that the demand has actually stayed fairly constant.

This process will use the "Number of Weeks" values determined in [section 5.3.1A](#), (Pg. 288) and "normalize" the appropriate demand types for each category of item:

- E&R: Normalize both Forecast Demand (outright [Non-normal] demand) and Rotable Demand

Forecast Demand:

$$\text{Non-normal Demand} / (\# \text{ Weeks}) \times 4$$

Rotable Demand:

$$\text{Rotable Demand} / (\# \text{ Weeks}) \times 4$$

- Expendable: Normalize Forecast Demand (Normal and Non-normal Demand)
 $(\text{Normal Demand} + \text{Non-normal Demand}) / (\# \text{ Weeks}) \times 4$

5.3.1D COMPUTE AVERAGE MONTH'S DEMAND (AMD)

This step computes Average Month's Demand (AMD) as follows:

- Add up the normalized values in each type of demand from [Section 5.3.1C](#), (Pg. 289).
- Divide the sum by # Months (from [Section 5.3.1B](#), ((Pg. 288). "# Months" may be anywhere from 1 to 12.

5.3.2 FORECAST RESET

The "Forecast Reset" step will be done when the Forecast Reset flag on the MRP Parameters record is "Y" (Yes).

This flag could be set to "Y" by selected File Maintenance or Adjustment actions, primarily:

- Transaction Code (T / C) 02T, Add NSN to Master Inventory file
- T / C 03J, File Maintenance - Demand History
- T / C 18, Transfer Between Categories/Accounts (if Demand History had to be realigned)
- T / C 05R [Delete/Transfer] with Action Code 2 (both NSN's on file, Demand History values are consolidated)
- T / C 20, Unit of Issue Change

This flag may also be set manually when an Inventory Manager deems it necessary. The Inventory Manager may decide to do this if it appears that selected demand occurrences are causing the demand to be very over- or understated. Details on setting the flag manually are in this User Guide in Section 3.5.6, Reset Forecast [MRP Parameters online processes].

One process that is affected by the Forecast Reset flag is Requirements. During the weekly (not monthly) processes, if the Requirements process encounters an item with a Forecast Reset flag of "Y," it will skip the item until it has gone through a monthly process.

The monthly process will perform the "reset" steps and get the demand values properly computed before a replenishment action is considered.

Anytime that a Forecast Reset is done, whether mechanically generated or manually set, the Inventory Manager will receive a Review Reason Notice advising that this has occurred.

The actions that occur during a Forecast Reset are as follows:

5.3.2A WRITE REVIEW REASON NOTICE

A Review Reason Notice will be written to the MRP Queue to advise that the Forecast Reset process was run. It will reflect the following Reason text:

FORECAST RESET - THIS MONTH

5.3.2B PERFORM RESET FOR FORECAST DEMAND

The process will reset the forecast for Forecast Demand as follows:

- Perform each Forecast Method (Executive and two Alternates), using the appropriate Average Month's Demand value(s) computed under the "SETUP" step discussed in Section 5.3.1.

In each case, the Average Month's Demand just computed is put into the monthly Forecast Demand value for each Forecast Method on the MRP Parameters file. This value replaces the previous month's Forecast Demand, which was considered to be wrong. The new value will be used in subsequent computations.

(See **Section 5.3**, (Pg. 283) Forecast Method, for details on each Forecast Method formula's computation methods.)

- For each method, compute a new Mean Squared Error (MSE):

$$\text{MSE} = \text{AMD}^B \times A$$

A = Variance Law A, from MRP Parameters

AMD = Average Month's Demand, from MRP Parameters

B = Variance Law B, from MRP Parameters

When a reset is done, all past history of forecast errors is removed. This computation provides a value on which to build a new forecast error history.

- Make all the error flags and counters zero (to restart the error counting process all over again):

Standard Error Tracking Signal (SETS)

SETS Indicator

MSE Counter

- If any of the Forecast Methods applicable to this NSN are "2" (Adaptive Exponential Smoothing), set the computation smoothing variables as follows:

$$\text{DEMAND-VAR1} = 0.01$$

$$\text{DEMAND-VAR2} = 0.10$$

The Adaptive Exponential Smoothing method computes its own smoothing variables, based on demand variances. This step provides a new base from which the forecasting method will "re-start" its variable computations.

5.3.2C PERFORM RESET FOR ROTABLE DEMAND

If the item is an E&R item, the reset process also resets the forecast for Rotable Demand as follows:

- The Average Month's Rotable Demand (computed earlier) is put into the monthly Forecast Demand -Rotable value on the MRP Parameters file. This value replaces the previous month's Forecast Demand - Rotable, which was considered to be wrong. The new value will be used in subsequent computations.
- Compute the Mean Squared Error for Rotable (MSE-ROT):

$$\text{MSE-ROT} = \text{AMD-ROT}^B \times A$$

$$A = \text{Variance Law A (from MRP Parameters)}$$

AMD-

$$\text{ROT} = \text{Average Month's Rotable Demand}$$

$$^B = \text{Variance Law B (from MRP Parameters)}$$

As for Forecast Demand, there is no history of forecast errors for Rotable Demand when a reset is done. This process will provide a value on which to build a forecast error history.

- Make all the error flags and counters zero (to restart the error counting process all over again):

Standard Error Tracking Signal - Rotable
(SETS-ROT)

SETS Indicator - Rotable (SETS-IND-ROT)

5.3.3 FORECAST DEMAND STATISTICS

Forecast Demand statistics identify the variances between the forecast and the actual demand values.

5.3.3A COMPUTE DEMAND FILTER TRIP (DFT)

On the MRP Parameters record for each NSN, there are values for "Upper Demand Filter Trip" and "Lower Demand Filter Trip." These values were intended to identify how far the actual demand can vary from the forecasted demand values before it would be reported to the Inventory Manager. The values on the MRP Parameters record were stated in terms of the "number of `standard deviations' allowed." The values for "Upper..." and "Lower Demand Filter Trip" were kept separately and could be modified (by personnel with the appropriate Security Level).

Under production conditions over the entire inventory, these computations were ineffective. They have been discontinued until such time that they can be revised to provide better "flagging" and reporting.

5.3.3B COMPUTE FORECAST ERROR:

"Forecast Error" is the difference between the most recent month's demand and the demand value that was forecast (predicted).

$$\text{FCST-ERR} = \text{F/D} - \text{CURR-DMD}$$

$$\text{F/D} = \text{Computed AMD (if forecast reset)}$$

OR

Last month's Forecast Demand (normalized [4-week number])

$$\text{CURR-DMD} = \text{Normalized value of most recent month's demand.}$$

5.3.3C COMPUTE MEAN SQUARED ERROR (MSE)

This computation will smooth the current Forecast Error into last month's Mean Squared Error (MSE):

$$\text{MSE}_{\text{new}} = (\text{MSE}_{\text{old}} \times [1 - \text{ESC}]) + (\text{ESC} \times [\text{FCST-ERR}]^2)$$

$$\text{ESC} = \text{Error Smoothing Constant, from MRP Parameters}$$

(NOTE: "ESC" is usually set close to the smoothing factor used on demand forecasting)

$$\text{FCST-ERR} = \text{Just computed}$$

$$\text{MSE}_{\text{old}} = \text{Previous month's Mean Squared Error, from MRP Parameters}$$

5.3.3D DETERMINE MONTHS-IN-SYSTEM

A new item must have at least 3 full months of demand experience before any type of error reporting will be done. This means: the month the NSN was added plus 3 months.

- If Months-In-System is less than 4, the process will put zeros in the statistics elements on the MRP Parameters record. No further computations on statistics are required.
- If Months-In-System is 4 or more, the process will compute the next statistic (SETS).

5.3.3E DETERMINE STANDARD ERROR TRACKING SIGNAL (SETS) VALUES:

As required, the process will compute the Standard Error Tracking Signal (SETS) values. The SETS was intended to compute the average difference between predicted and actual demand. It was supposed to identify if the forecast computations were consistently coming out high or low when compared to the actual demand being experienced. If the forecast was consistently high or low, this condition would be reported via the Review Reason Notice. The Inventory Manager could determine if there was a Demand History value that may be incorrectly biasing the forecast and if a Forecast Reset should be considered.

Under production conditions over the entire inventory, these computations were ineffective. They have been discontinued until such time that they can be revised to provide better "flagging" and reporting.

5.3.4 ROTABLE FORECAST DEMAND STATISTICS

The process will also compute Forecast Demand Statistics for the Rotable Demand, similar to what was done for Forecast Demand. These computations will be done only if the item is an E&R item. The following details the steps:

5.3.4A COMPUTE DEMAND FILTER TRIP (DFT)

Like Forecast Demand, these computations were ineffective under production conditions over the entire inventory. They have been discontinued until such time that they can be revised to provide better "flagging" and reporting.

5.3.4B COMPUTE FORECAST ERROR FOR ROTABLE:

This step will determine the difference between the predicted demand for Rotable Demand and the actual demand for the month just completed.

$$\text{FCST-ERR-ROT} = \text{FD-ROT} - \text{CURR-DMD-ROT}$$

$$\text{FD-ROT} = \text{Computed AMD-ROT (if reset)}$$

OR

Last month's Forecast Rotable Demand (figured as a 4-week number)

$$\text{CURR-DMD-}$$

$$\text{ROT} = \text{Normalized value of most recent month's Rotable Demand}$$

5.3.4C COMPUTE MEAN SQUARED ERROR - ROTABLE

This step will compute the Mean Squared Error for the new month by smoothing the current Rotable Forecast Error into last month's Mean Squared Error - Rotable (MSE-ROT).

$$\text{MSE-ROT}_{\text{new}} = (\text{MSE-ROT}_{\text{old}} \times (1 - \text{ESC})) + (\text{ESC} \times (\text{FCST-ERR-ROT})^2)$$

ESC = Error Smoothing Constant, from MRP Parameters

MSE-ROT_{old} = Mean Squared Error - Rotable, from MRP Parameters

FCST-ERR-ROT = Just computed

5.3.4D MOVE AVERAGE MONTHLY DEMAND ROTABLE TO FORECAST DEMAND ROTABLE

The Average Monthly Demand Rotable will be placed in the Forecast Demand Rotable element on the MRP Parameters record.

5.3.4E DETERMINE MONTHS-IN-SYSTEM

Like expendable items, a new E&R item must have at least 3 full months of demand experience before any type of error reporting will be done. This means: the month the NSN was added plus 3 months.

- If Months-In-System is less than 4, the process will put zeros in the statistics, and no further computations on statistics are required.
- If Months-In-System is 4 or more, the process will compute the next statistic (SETS).

5.3.4F COMPUTE STANDARD ERROR TRACKING SIGNAL (SETS)

Like Forecast Demand, these computations were ineffective under production conditions over the entire inventory. They have been discontinued until such time that they can be revised to provide better "flagging" and reporting.

5.3.5 COMPUTE FORECAST DEMAND

This step performs the actual computation of the new Forecast Demand. It will use the Forecast Methods (Executive and two Alternates) identified in the MRP Parameters record for the applicable NSN to determine the value for "Forecast Demand" for each method. (Details on computation methods are in [Section 5.5](#), ((Pg. 331))Forecast Methods).

The computed values will be stored on the MRP Parameters record as a "normalized" value for a 4-week month. Before the value is put on the MRP Data (Table), it will be "de-normalized" (used as is for a 4-week month or converted to a corresponding 5-week-per-month value).

Only the value computed by the Executive Forecast Method is used to update the Master Inventory record and the MRP Data (Table). The values computed using the Alternate Forecast Methods are for comparison purposes only.

5.3.6 COMPARE ACCURACY OF FORECAST METHODS

In a previous step, the MSE was computed for each Forecast Method and put into the MRP Parameters record. A smaller MSE indicates a Forecast Method is doing a better forecasting job than a Forecast Method with a larger MSE.

The "MSE Counter" identifies if a particular Alternate Forecast Methods has done a better job forecasting the demand than the Executive Forecast Method. Separate counters are kept for each one of the two Alternate Forecast Methods. Any time that the Executive Method does as well or better than one of the Alternates, the process will reset the MSE Counter for that Alternate to zero and start the number-of-months count over. It is also possible that **both** Alternate Forecast Methods may do a better forecasting job than the Executive Forecast Method.

In addition, there is a "MSE Counter Limit" that indicates how many months in a row that an Alternate Forecast Method must do a better forecasting job before it will be reported as better than the Executive Forecast Method. If one or both Alternate Forecast Methods perform better than the Executive Method, the Inventory Manager should consider changing the Executive Method to one of the Alternate Methods.

Initially, the value for MSE Counter Limit will be set at three (3) months. This value is kept on the MRP Parameters record and may be changed as needed.

(The online inquiry and update processes for the MRP Parameters records are covered in [Section 3.5](#), ((Pg. 198))of this User Guide).

This step will determine any needed updates to the MSE Counter for each Alternate Forecast Method and decide if one or more of the Alternate Forecast Methods should be reported as performing better than the Executive Forecast Method.

- For the first Alternate Forecast Method:

Compare MSE_{Alt1} and MSE_{Exec} .

If $MSE_{Alt1} < MSE_{Exec}$, add 1 to $MSE\text{-}Counter_{Alt1}$

If $MSE_{Alt1} \geq MSE_{Exec}$, move 0 to $MSE\text{-}Counter_{Alt1}$

MSE_{Alt1} = Mean Squared Error for first Alternate Forecast Method

MSE_{Exec} = Mean Squared Error for Executive Forecast Method

$MSE\text{-}$

$Counter_{Alt1}$ = Mean Squared Error Counter for first Alternate Forecast Method.

- For the second Alternate Forecast Method:

Compare MSE_{Alt2} and MSE_{Exec} .

If $MSE_{Alt2} < MSE_{Exec}$, add 1 to $MSE\text{-}Counter_{Alt2}$.

If $MSE_{Alt2} \geq MSE_{Exec}$, move 0 to $MSE\text{-}Counter_{Alt2}$.

MSE_{Alt2} = Mean Squared Error for second Alternate Forecast Method

MSE_{Exec} = Mean Squared Error for Executive Forecast Method

MSE-

Counter_{Alt2} = Mean Squared Error Counter for second Alternate Forecast Method

- Compare the values of MSE-Counter_{Alt1} and MSE-Counter_{Alt2} to MSE-Counter_{Limit}:

If $\text{MSE-Counter}_{\text{Alt1}} \geq \text{MSE-Counter}_{\text{Limit}}$, put out Review Reason Notice:

ALTERNATE FORECAST METHOD #1 HAS SMALLER ERROR

If $\text{MSE-Counter}_{\text{Alt2}} \geq \text{MSE-Counter}_{\text{Limit}}$, put out Review Reason Notice:

ALTERNATE FORECAST METHOD #2 HAS SMALLER ERROR

If both Alternate Forecast Methods were reported as performing better than the Executive Forecast Method, the Mean Squared Error (MSE) on the MRP Parameters record will indicate which Alternate performed the best and produced the smallest MSE. As needed, the Inventory Manager can then take action to have the Executive and Alternate Forecast Methods updated with new values. (See Section 3.5 of this User Guide for information on the online update processes for the MRP Parameters.)

5.3.7 CREATE / UPDATE MRP PARAMETERS RECORD

The Forecast Demand processes depend on information contained in the MRP Parameters records which includes:

Executive and Alternate Forecast Methods
Previous month's error values and counters

If there was no existing MRP Parameters record when the process began (i.e., the NSN is a new item), all the preceding steps were handled by using the default "System Forecast" MRP Parameters record.

A new record must be created for the NSN so that the results of this process can be recorded for use in the next month's processing. If the NSN had been in the system for a while, the forecasting process will use the item's individual MRP Parameter record, which then must be updated with the results from the current month's calculations.

The MRP Parameters record for the NSN will be created/updated as follows:

- If an MRP Parameters record was not found for a particular NSN, the process will **create** a new MRP Parameters record for that NSN using the default values (System Forecast values on MRP Parameters file). The calculation results (as detailed below) will also be stored in this record for use in the next month's process.
- If an MRP Parameters record was found for a particular NSN, this step will **update** that record with the new counters and other values computed in the previous steps, including:

- Forecast Demand
- SETS
- SETS Indicator
- MSE
- MSE Counter

These values are stored by Forecast Method and will be updated that way.

In addition, for E&R items, the following values will be stored:

- Forecast Demand Rotable
- MSE for Rotable Demand
- SETS for Rotable Demand
- SETS Indicator for Rotable Demand

5.3.8 REVIEW REASON NOTICES ON MRP QUEUE (REASON TEXT/DATA ELEMENTS)

All Review Reason Notice records have been suppressed.

Review Reason Notice records will be written by the Forecast Demand process when it encounters "out of tolerance" situations between projected and actual demand, or when one or both of the Alternate Forecast Methods are doing a better job of predicting demand than the Executive (primary) Forecast Method. The records do not contain a great deal of information, other than identifying the condition and the NSN. In some cases, the Inventory Manager will need to do research records outside of the MRP records to determine what caused the condition.

The Inventory Manager needs to pay close attention to the message (Reason Text) attached to the individual record. In addition, multiple Review Reason Notice records may be written for an NSN. The Inventory Manager should look at all records for a single NSN together to determine the proper course of action.

5.3.8A REASON TEXT

The following information identifies the Reason Text that may be seen on Review Reason Notice records and what it means:

- **ALTERNATE FORECAST METHOD #1 HAS SMALLER ERROR**

Alternate Forecast Method #1 has forecast the demand on this item with a smaller error (difference between Forecast and actual) than the Executive Forecast Method. The Inventory Manager can identify what the Alternate Forecast Method is by inquiring the items MRP Parameters record.

After reviewing all other Review Reason Notices for this NSN, the Inventory Manager may determine that the Executive Forecast Method should be changed to this Alternate. This information should be discussed with the supervisor, and if update is required, the request should be passed to someone with a sufficiently high Security Level to allow updating of the Forecast Methods (initially, the LIS Staff).

- **ALTERNATE FORECAST METHOD #2 HAS SMALLER ERROR**

This text indicates the same condition as the text for "Alternate Forecast Method #1..." except Alternate #2 performed better. The Inventory Manager considerations and actions are the same.

However, if the Inventory Manager has received Review Reason Notices on both Alternate Forecast Methods, he/she should request LIS Staff assistance in

identifying the method that performed with the smallest error when compared to actual demand.

- **FORECAST RESET - THIS MONTH.**

During the monthly process, one of two conditions was encountered:

There was no MRP Parameters record for the NSN.

OR

The MRP Parameters record for the NSN showed a Forecast Reset flag set at "Y" (Yes).

As a result, the Forecast Reset steps were performed. One result was that all error counters were reset to zero to start the error evaluation / reporting process over.

This notice is informational, and generally the Inventory Manager is aware of the action that generated the reset or may have personally initiated the reset. This notice will be mechanically generated by the following transactions:

Transaction Code (T / C) 02T, Add NSN to Master Inventory

T / C 03J, File Maintenance - Demand History

T / C 05R/Action Code 2 (Delete and Transfer, both Old and New NSN's on record)

T / C 05R/Action Code 5 (Delete and Replace By, both Old and New NSN's on record)

T / C 18, Transfer Between Categories/Accounts (if Demand History had to be realigned)

T / C 20/Action Codes 1 and 2 (Unit of Issue Change, Multiply and Divide)

If the Inventory Manager is not sure what generated the reset, he/she may want to do further research to determine the reason for the reset action.

5.3.8B DATA ELEMENTS IN REVIEW REASON NOTICE RECORD

The Review Reason Notice records primarily contain identification of the NSN and the Forecast condition encountered. Most research will be outside of the MRP system, generally the Demand History file.

The data elements that will be included are as follows:

APPLICATION-TO	=	From Master Inventory
ALTERNATE FORECAST METHOD #1	=	From MRP Parameters (with code translated to clear-text)
ALTERNATE FORECAST METHOD #2	=	From MRP Parameters (with code translated to clear-text)
DESCRIPTION	=	From Master Inventory

EXECUTIVE FORECAST METHOD	=	From MRP Parameters (with code translated to clear-text)
FORECAST RESET FLAG	=	From MRP Parameters
ITEM MANAGER CODE	=	From Master Inventory
NSN	=	NSN
NSN SUFFIX	=	blank (no forecasting done for F&E items)
ORIG NSN	=	same as "NSN"
ORIG NSN SFX	=	blank
ORG ID	=	From IM table
PROCESS DATE	=	Current date
PROCESS TIME	=	Current time
QUEUE STATUS	=	M1 (Review Reason Notice) [internal element]
REASON TEXT	=	Converted from Reason Code
USER ID	=	Program ID ("LG435")

5.4 FORECAST DEMAND DATA IN MRP DATA (TABLE)

This step will spread the Forecast Demand and selected other values across the 36 months on the MRP Data (Table) file.

NOTE : The Forecast Demand process will not spread any actual values from subsidiary records (Due-In Acquisition, Due-In Facility, etc.); this is done in the Requirements process.

The process will take the 4-week Forecast Demand value from the MRP Parameters record for the Executive Forecast Method only. "Forecast Demand" consists of Normal and Non-normal Demand for an expendable item and Non-normal Demand for an E&R item. As the demand is spread across the table, it will be "de-normalized" (4-week value converted to a 5-week value), when required and also will receive "special handling" as needed (see [Section 5.4.1](#), ((Pg. 317) of this User Guide). The system Cycle Table identifies which months contain 4 weeks versus 5 weeks.

The "Carry and Round" process will take care of any decimals that are encountered. [See Section 5.4.3](#), (Pg. 321).

The following information identifies the elements on the MRP Data (Table) that are updated by the Forecast Demand process:

MRP DATA (TABLE) ELEMENTS

("Planned" = in progress;

"Projected" = predicted by MRP process)

PROJECTED ON HAND

- SERV Mechanically updated (-) when demand is projected to occur for both expendable and E&R items. Will not be allowed to go below Safety Stock quantity.
- For expendable/stocked items, all projected demand (Forecast, Additional, CRO [except CRO on Cat 2]) in a month must be supportable or entire demand quantity will be recorded under D/O section. In addition, all D/O quantity must be supportable or none of D/O quantity will be projected to be released.
 - For E&R items, demand (Forecast, Rotable, Condemnation, Additional) may be supported in a "piecemeal" fashion, to ensure that assets continue to come in and out of "pipeline." The same is true of the D/O quantity.

See also Requirements Section [[Expendable - 4.2.10](#), (Pg. 243) and [E&R - 4.3.7](#)] (Pg. 266)].

REP Will be updated for E&R for projected Rotable or Additional demand that can be issued (when projected DIF quantity is predicted to be returned by field, based on Issue and Return Time data, process will add to REP and subtract from DIF and PROJECTED ACTIONS - REP RECPT)

SURV - (No mechanical update - will carry Beginning Balance value forward)

DIF	Will be updated for E&R for projected Rotable or Additional demand that can be issued (process will subtract from SERV and add to DIF; DIF return time will be projected in PROJECTED ACTIONS - REP RECPT based on Issue and Return Time data)
DIS	See also Requirements Section [Expendable - 4.2.10 , (Pg. 243) and E&R - 4.3.7 , (Pg. 266)]
CDIS	See also Requirements Section [Expendable - 4.2.10 , (Pg. 243) and E&R - 4.3.7 , (Pg. 266)].
BIN	- (No mechanical update - will carry Beginning Balance value forward)
RTV	- (No mechanical update - will carry Beginning Balance value forward)
TOTAL	Sum of Serv, Rep, Surv, DIF, DIS, CDIS, BIN, RTV -updated when segments are updated
D/O	<p>Will be increased when projected demand cannot be supported without going below Safety Stock quantity. Will be decreased when SERV stock position improves to the point that allows release.</p> <p>- For expendable items, <u>all</u> projected demand (Forecast, Additional, CRO [except CRO on Cat 2]) in a month must be supportable or entire demand quantity will be recorded under D/O section.</p>

In addition, all D/O quantity must be supportable or none of D/O quantity will be projected to be released.

- For E&R items, demand (Forecast, Rotable, Condemnation, Additional) may be supported in a "piecemeal" fashion, to ensure that assets continue to come in and out of "pipeline." The same is true of the D/O quantity.

<u>PROJECTED DEMAND</u>	(A total for each demand type for each of the three years will be displayed/printed also.)
F/D	"De-normalized" predicted monthly Forecast Demand (based on Normal/Non-normal Demand for expendable; based on Non-normal Demand for E&R).
ROT	"De-normalized" predicted monthly Rotable Demand for E&R only (blank for expendable)
CDMN	"De-normalized" predicted monthly Normal (Condemnation) Demand for E&R only (blank for expendable)
OTHER	"De-normalized" predicted monthly Other Demand for expendable only (represents field demand for Category 2 item). Value will not affect SERV quantity but will be used for Budget purposes (updates "Direct Ship" category).
SCHED	Not used this phase -- reserved for future development

ADDL	Quantities from applicable Additional Demand record for specified Month/Year.
CRO	33% of Reserved Quantity will be spread across each year and, for other than Category 2, will be considered like Forecast Demand. (On Category 2, CRO demand will be considered as part of Other [field] demand for Budget purposes [updates "Direct Ship" category].)
TOTAL	Sum of all demand types

PLANNED RECEIPTS

SERV	See also Requirements Section [Expendable - 4.2.10 , (Pg. 243) and E&R - 4.3.7 , (Pg. 266)]
REP	See also Requirements Section [Expendable - 4.2.10 , (Pg. 243) and E&R - 4.3.7 , (Pg. 266)].
DIA	See also Requirements Section [Expendable - 4.2.10 , (Pg. 243) and E&R - 4.3.7 , (Pg. 266)].
ACR	See also Requirements Section [Expendable - 4.2.10 , (Pg. 243) and E&R - 4.3.7 , (Pg. 266)].

PROJECTED ACTIONS

ACQN	See also Requirements Section [Expendable - 4.2.10 , (Pg. 243) and E&R - 4.3.7 , (Pg. 266)].
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COML REPAIR	See also Requirements Section [Expendable - 4.2.10 , (Pg. 243) and E&R - 4.3.7 , (Pg. 266)].
SHOP REPAIR	See also Requirements Section [Expendable - 4.2.10 , (Pg. 243) and E&R - 4.3.7 , (Pg. 266)].
SERV RECPT	See also Requirements Section [Expendable - 4.2.10 , (Pg. 243) and E&R - 4.3.7 , (Pg. 266)].
REP RECPT	Will be updated for E&R only, and reflect predicted return of DIF issued for projected Rotable or Additional demand (based on Issue and Return Time data, process will add to REP and subtract from DIF and PROJECTED ACTIONS - REP RECPT)

PROJECTED BUDGET

ACQN	See also Requirements Section [Expendable - 4.2.10 , (Pg. 243) and E&R - 4.3.7 , (Pg. 266)].
COML REPAIR	See also Requirements Section [Expendable - 4.2.10 , (Pg. 243) and E&R - 4.3.7 , (Pg. 263)].
SHOP REPAIR	See also Requirements Section [Expendable - 4.2.10 , (Pg. 243) and E&R - 4.3.7 , (Pg. 263)].
DIRECT SHIP	Expendable items only - Will reflect all projected demands for Category 7 items. For Category 2 items, will reflect total of Other and CRO Demand (considered "field" demand) is used for Budget purposes.

TOTAL
ACQN : Sum of 1-12 months of Projected Actions - Acquisition on first page (Year 1); sum of 13-24 months of Projected Actions - Acquisition on second page (Year 2); sum of 25- 36 months of Projected Actions - Acquisition on third page (Year 3)

COML REPAIR: Sum of 1-12 months of Projected Actions - Commercial Repair on first page (Year 1); sum of 13-24 months of Projected Actions - Commercial Repair on second page (Year 2); sum of 25-36 months of Projected Actions - Commercial Repair on third page (Year 3).

SHOP REPAIR: Sum of 1-12 months of Projected Actions - Shop Repair on first page (Year 1); sum of 13-24 months of Projected Actions - Shop Repair on second page (Year 2); sum of 25-36 months of Projected Actions - Shop Repair on third page (Year 3)

DIRECT SHIP: Sum of 1-12 months of Projected Actions - Direct Ship on first page (Year 1); sum of 13-24 months of Projected Actions - Direct Ship on second page (Year 2); sum of 25-36 months of Projected Actions - Direct Ship on third page (Year 3)

5.4.1 SPECIAL HANDLING FOR SELECTED FORECAST METHODS

Forecast Demand values are placed in the MRP Data (Table) according to the Executive Forecast Method. Some of the Forecast Methods require special handling when they are spread, beyond the "de-normalizing."

The "special handling" requirements (if any) for each Forecast Method are as follows:

5.4.1A FORECAST 0:

With this Forecast Method, Forecast Demand will always be zero in all months of the MRP Data (Table).

5.4.1B SINGLE EXPONENTIAL SMOOTHING:

For the initial implementation, there will be no special handling requirements for this Forecast Method; the demand will be spread according to the "regular" process detailed in [Section 5.4.2](#), (Pg. 320).

Future plans will provide for consideration of Equipment Population variances against the Forecast Demand information, in addition to the "number of weeks" consideration for "de-normalizing." The need for this type of special handling will be identified by the "Leading Indicator flag" on the NSN's MRP Parameter record being "Y" (Yes) for this Forecast Method. This flag can be altered by designated Inventory Management personnel, along with the applicable Forecast Methods for the NSN.

Equipment Population will be developed during a future development phase of LIS.

5.4.1C ADAPTIVE EXPONENTIAL SMOOTHING:

Similar to Single Exponential Smoothing, this Forecast Method during initial operations will be spread according to the "regular" process and will not require any special handling. In a later phase, it will consider the "Leading Indicator flag" as detailed above.

5.4.1D MOVING AVERAGE ("N" MONTHS):

No special handling of this Forecast Method is required under the initial implementation and operations; Forecast Demand will be spread according to "regular" steps. Later it will consider the "Leading Indicator flag" as detailed under Single Exponential Smoothing above.

5.4.1E DOUBLE EXPONENTIAL SMOOTHING:

This Forecast Method will take the basic "level" and will add a "trend" every month. The value will also be "de-normalized."

A projected month's Forecast Demand value will be determined as follows:

$$\begin{aligned} F/D &= (A + [B \times \text{Month number}]) \times (\# \text{ Weeks} / 4) \\ A &= \text{"level"} \\ &\quad (2 \times \text{Demand-Var1}) - \text{Demand-Var2} \\ B &= \text{"trend"} \\ &\quad (\text{Demand-Var1} - \text{Demand-Var2}) \times (A \times [1 - A]) \end{aligned}$$

Demand-Var1 = From MRP Parameters (computed previously)
Demand-Var2 = From MRP Parameters (computed previously)
Month Number = 1 - 36
Weeks = Number of Weeks in applicable month; from Cycle Table

5.4.1F LINEAR REGRESSION:

Each projected month's Forecast Demand value will be determined as follows:

$F/D = (Demand-Var1 + [Demand-Var2 \times Month\ Number]) \times (Weeks/4)$

Demand-Var1 = From MRP Parameters (computed previously)
Demand-Var2 = From MRP Parameters (computed previously)
Month Number = 1 - 36
Weeks = Number of Weeks in applicable month; from Cycle Table

5.4.1G WEIGHTED AVERAGE:

This Forecast Method requires no special handling beyond "de-normalizing"; the "regular" process steps apply here.

5.4.1H FORECAST 1:

A demand of "1" will be placed in the month just after the Procurement Lead-time (PLT). "Forecast 1" will normally be "replace it as it is used." No replenishment action will be projected until the month after the current month. Unless the item is actually issued during the current month, the demand will be moved out one more month during the following month's processing.

5.4.1I FAILURE RATE

- RESERVED --

(This Forecast Method will not be used under the initial implementation, until failure data is available for widespread use. Any special handling requirements will be developed at a later time.)

5.4.2 REGULAR SPREAD OF FORECAST DEMAND VALUES

The "regular" spread approach for Forecast Demand values applies to items with the following Forecast Methods identified as the Executive Forecast Method:

- | | |
|----|--------------------------------|
| 01 | Single Exponential Smoothing |
| 02 | Adaptive Exponential Smoothing |
| 03 | "N" Month Moving Average |
| 06 | Weighted Average |

For these items, the newly computed monthly Forecast Demand value will be "de-normalized" (4-week value converted to 5-week value as needed) and put into each month on the MRP Data (Table).

The system Cycle Table contains information for the number of weeks in each month in the future. The following defines how the monthly Forecast Demand values are "de-normalized":

If the number of weeks in month = 4, value is used as it is.

If the number of weeks in month = 5, value is:

$$\frac{\text{Forecast Demand} \times 5}{4}$$

In the future, when applicable (i.e., the Leading Indicator flag is on), the process will use the Leading Indicator factors in predicting and spreading the Forecast Demand values on the MRP Data (Table). Further information will be provided when the Equipment Population/Leading Indicator function has been fully developed. The new process will allow for both increases and decreases in Equipment Population.

Any decimals that result from this computation will be handled by the "Carry and Round" process covered in [Section 5.4.3](#), (Pg. 321).

5.4.3 "CARRY AND ROUND"

The "Carry and Round" process handles decimals that come out of the calculations, in particular those occurring when the demand is "de-normalized."

If the "de-normalized" demand value has a decimal of .49 or less, the decimal will be dropped from the demand value. Otherwise, the demand value will be rounded up to the next whole number.

If the previous month was rounded up, the amount needed to round that month's value up to a whole number will be taken out of the next month's value before any decision on rounding is made. Likewise, if a decimal is dropped from a month's value when the value is rounded down, the "dropped" decimal will be added to the next month's value, again before any rounding decision is made.

An example of how this works follows (in this example, the demand was very low [4 per year]):

Original

<u>Month</u>	<u>Value</u>	<u>"Rounded"</u>	<u>Value Up/Down</u>
Month 1	.33	= 0	Down .33
Month 2	.33	= .33 + .33 = .66	
		= 1	Up .34
Month 3	.41	= .41 - .34 = .07	
		= 0	Down .07
Month 4	.33	= .33 + .07 = .40	
		= 0	Down .40
Month 5	.33	= .33 + .40 = .73	
		= 1	Up .27
Month 6	.41	= .41 - .27 = .14	
		= 0	Down .14

Month 7	.33	$= .33 + .14 = .47$ $= 0$	Down .47
Month 8	.33	$= .33 + .47 = .80$ $= 1$	Up .20

5.4.4 ROTABLE DEMAND ON MRP DATA (TABLE)

The forecast for future Rotable Demand consists of an average of the last 12 months of actual Rotable Demand. This information is also stored as a monthly value on the NSN's MRP Parameters record.

This average value is "de-normalized" and spread for 36 months. Leading Indicators are not a consideration at this time, since Equipment Population data is not available.

The "Carry and Round" process will handle any decimals. [See Section 5.4.3](#), (Pg. 321).

5.4.5 PROJECTED RETURN OF REPARABLE ITEMS

When a rotatable demand is projected to occur, the process will also project when the reparable item will probably be returned and would be available for future predicted repair actions. Projected returns of reparable items will be based on the Issue and Return (I&R) Time on the item's Master Inventory record (regardless of the return date projected by the Issue/Requisitioning programs), as follows:

$$\text{Return Month} = \text{Issue [Demand] Month} + \text{I\&R Time}$$

The projected returns will update the "Projected Receipt - Repairable" element for the appropriate month.

NOTE : It should be remembered that firm Due-In Facility records will update the "Planned Receipt - Repairable," while the return from a projected rotatable issue will update the "Projected..." element.

5.4.6 COMMISSIONING RESERVE OBLIGATION (CRO) DEMANDS

Commissioning Reserve Obligation (CRO) represents the quantity needed to support new equipment being installed and commissioned. It will be supplied under the Initial Supply Support Allowance Chart (ISSAC) process. At the present time, there is no system information that will indicate when the actual installation/ commissioning will occur. In the past, a 3-year schedule was assumed, and about a third of the quantity was allotted whenever an acquisition action was considered. A typographical error in the past set the amount considered at 38 percent.

For this initial operation, the process will continue with the assumed 3-year schedule. However, the typographical error will be corrected, and the process will consider 33 percent in all acquisition actions. In addition, when the data is spread across the MRP Data (Table) months, the data will be weighted toward the beginning of the year (a conservative approach to ensure the stock is available when it is requested).

- The Reserved Quantity on the Master Inventory record will be divided by 3 (three years).

- The process will put a quantity of 1 in the first period of each year, then 1 in the second period of each year. The process will continue in this manner as long as the quantity lasts.
- If the Reserved Quantity is more than 36, it will start over again and put 1 more in each period as detailed above.
- The process will continue to spread the quantity until the entire Reserved Quantity has been used.

An example of how this would be done is shown below:

RESERVED QUANTITY = 13

	MONTH																																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
CRO	1	1	1	1	1								1	1	1	1									1	1	1	1									

5.4.7 ADDITIONAL DEMAND

Additional Demand records must have a month/year assigned when they are created. This process will place the Additional Demand value in the period designated by the date in the Additional Demand record.

Only those records that have dates within the next 36 months will be considered. A "housekeeping" process will run in advance of the Forecast Demand process and will remove any Additional Demand records that have expired. Inventory Managers should pay close attention to demand dates in the Additional Demand records and update any that should be extended in a timely manner.

Details on adding, modifying, and deleting Additional Demand records is in Section 3.2 (Additional Demand Function) of this User Guide.

5.4.8 PROJECTED DEMAND

"Projected Demand" is the sum of all predicted demands and is an element on the MRP Data (Table). It is computed the same for expendable and for E&R. However, this number is not very meaningful for E&R; the individual demand values are more important for E&R and often are handled separately.

The possible predicted demand categories are:

Forecast	Normal + Non-normal for expendable; Non-normal (outright issues) for E&R
Rotable	E&R only, from Rotable Demand

Condemnation	E&R only, from Normal Demand
Other	Category 2 field demand only
Scheduled	Not used this phase (future plans - projected component part demand related to planned repairs)
Additional	From Additional Demand records
CRO	From Reserved Quantity on Master Inventory record

The predicted demand is actually applied against the item's projected stock balances during the Requirements process. Depending on the item's category, different demand(s) will affect the balance, while other demands are captured for budget purposes only.

For example, "Other" demand is never subtracted from the projected serviceable balance. On a Category 2 item, CRO will not be subtracted from the projected serviceable balance, but it will be subtracted if the item is a Category 4 item.

The first twelve months of the monthly Forecast Demand values on the MRP Data (Table) will be accumulated for Master Inventory update (will be the "Forecasted Demand" value on the Master Inventory record).

5.4.10A MRP REVIEW POINT

"MRP Review Point" replaces Acquisition Review Point and Repair Review Point. It is the value at which a replenishment action should be received. In simplified terms, when Serviceable stock is projected to reach the MRP Review Point, the process (Requirements) will "back up" the value of lead-time (Acquisition Lead-time for expendable items, Repair Lead-time for E&R items) and plan a replenishment action.

MRP Review Point itself does not contain any lead-time quantity.

MRP Review Point is based on the variance in demand, rather than a certain number of months of stock as in the past. It is computed from the Mean Squared Error (MSE) that is tracked each month (basically equates to "2 `standard deviations").

MRP Review Point is computed separately for expendable and for E&R items. Each computation considers variations in the appropriate demands, between predicted and actual.

NOTE : If the MRP Review Point on the Master Inventory record is **frozen**, this computation is not performed and the existing value is not changed.

(A monthly report identifies any Master Inventory elements that are frozen and not subject to mechanical update.)

Expendable

$$\text{MRP Review Point} = 2 \times \sqrt{\text{MSE} \times \text{PLT}}$$

E&R

$$\text{MRP Review Point} = 2 \times \sqrt{(\text{MSE} + \text{MSE-ROT}) \times \text{RLT}}$$

MSE = Mean Squared Error for Forecast Demand, from MRP Parameters

MSE-ROT = Mean Squared Error for Rotable Demand, from MRP Parameters

PLT = Procurement Lead-time, from Master Inventory

RLT = Repair Lead-time, from Master Inventory

The newly computed value will update the Master Inventory record for the NSN.

5.4.10B SAFETY STOCK

Safety Stock is re-computed each month during the MRP process and updated on the Master Inventory record.

NOTE : If the Safety Stock on the Master Inventory record is **frozen**, this computation is not performed and the existing value is not changed.

(A monthly report identifies any Master Inventory elements that are frozen and not subject to mechanical update). Safety Stock has been revised to coincide with the definition in Order 4630.1C, Management of Depot Inventories of Operating Materiel, for contingency Safety Stock. It is a percentage of the MRP Review Point, as follows:

5.4.11 ACCOUNTING CLASSIFICATION CODE = 6 (INSURANCE) OR 0
(POTENTIAL EXCESS):

$$\text{Safety Stock} = 0$$

All stock for an Insurance item is considered to be Safety Stock. No Safety Stock is protected on an item in a Potential Excess status.

5.4.11A IF MRP REVIEW POINT = 0 OR 1:

$$\text{Safety Stock} = 0$$

No Safety Stock will be protected for very low demand items or for those items that experience very little variation in demand.

5.4.11B IF MRP REVIEW POINT > 1:

$$\text{Safety Stock} = \text{MRP Review Point} \times .1$$

Safety Stock is a five-position element, and will be between 1 and 99999. On any item falling under this computation method, the Safety Stock will be at least 1.

5.4.11C SUMMARY OF MASTER INVENTORY UPDATES

The following fields on the Master Inventory records are updated by the Forecast Demand process:

Forecasted Demand	Sum of first 12 periods of Forecast Demand on MRP Data (Table)
12-Month Rotable	Sum of first 12 periods of Rotable Demand on MRP Data (Table)
Safety Stock	Computed value
MRP Review Point	Computed value

5.5 FORECAST METHODS

The Forecast Demand process utilizes an Executive ("primary") and two Alternate Forecast Methods to predict future demand for inventory items. There are 9 possible methods that can be selected for use.

The Forecast Methods applicable to an individual NSN are identified in that NSN's MRP Parameters record. In addition, there is a "System Forecast" MRP Parameter record that identifies the methods to be used when there is no MRP Parameter record (i.e., item is new to the system since the last monthly process). These methods can be changed by updating the MRP Parameter record; however, update capabilities are strictly limited to a few Security Levels. If a particular Forecast Method has special value requirements, the update process will request the user to input those specific values when the change is made.

Initially, all records were loaded with the following Forecast Methods:

EXECUTIVE	Single Exponential Smoothing
ALTERNATE #1	"N" Month Moving Average ("N" = 12)
ALTERNATE #2	Adaptive Exponential Smoothing

"Single Exponential Smoothing" was the single method that was used under the previous National Supply system processes.

Each applicable method is explained below.

5.5.1 FORECAST ZERO

5.5.1A CODE: 00

5.5.1B DESCRIPTION:

No replenishment required on this item. This Forecast Method could be applied to secondary items for which the demand has been consolidated with the preferred item or any other item where replenishment is not wanted.

5.5.1C FORMULA:

$$F/D_{\text{new}} = 0$$

5.5.1D OTHER INFORMATION:

None

5.5.2 SINGLE EXPONENTIAL SMOOTHING

5.5.2A CODE: 01

5.5.2B DESCRIPTION:

This Forecast Method provides a smoothed weighted average of demand using an alpha factor. The alpha factor should be used which results in the smallest error. Leading Indicators may be used when the demand is spread on the MRP Data (Table).

5.5.2C FORMULA:

$$\begin{aligned} F/D_{\text{new}} &= [(1 - A) \times F/D] + (A \times \text{CURR-DMD}) \\ A &= \text{Alpha factor, from MRP Parameters} \\ F/D &= \text{Forecast Demand from previous month, from MRP} \\ &\quad \text{Parameters for the applicable Forecast Method} \\ \text{CURR-DMD} &= \text{Actual demand for month just completed, from Demand} \\ &\quad \text{History} \end{aligned}$$

5.5.2D OTHER INFORMATION:

None

5.5.3 ADAPTIVE EXPONENTIAL SMOOTHING**5.5.3A CODE: 02**

5.5.3B DESCRIPTION:

Forecasts generated by this Forecast Method are responsive to changes in the pattern of the demand. The alpha factor is automatically selected depending on fluctuations in the data and previous errors. Therefore, the value of the alpha factor is increased when the error between the forecasted value and the actual value increases or decreased when the error decreases. Leading Indicators may also be used in spreading the demand on the MRP Data (Table).

5.5.3C FORMULA:

- Compute Demand-Variable-1:

$$\text{Demand-Var1}_{\text{new}} = (0.1 \times \text{FCST-ERR}) + (0.9 \times \text{Demand-Var1})$$

$$\text{FCST-ERR} = \text{just computed, difference between predicted and actual demand for the month just completed.}$$

$$\text{Demand-Var1} = \text{Previous month's value, from MRP Parameters for the applicable Forecast Method}$$

- Compute Demand-Variable-2:

$$\text{Demand-Var2}_{\text{new}} = \sqrt{(0.1 \times \text{FCST-ERR}) + (0.9 \times \text{Demand-Var1})}$$

$$\text{FCST-ERR} = \text{just computed}$$

$$\text{Demand-Var1} = \text{just computed}$$

- If Demand-Variable-2 ≤ 0 :

$$\begin{aligned} \mathbf{F/D_{new}} &= \mathbf{F/D} \quad (\text{no change to Forecast Demand value}) \\ \mathbf{F/D} &= \text{Previous month's Forecast Demand, from MRP} \\ &\quad \text{Parameters for the applicable Forecast Method} \end{aligned}$$

- If Demand-Variable-2 > 0 :

Compute new alpha factor (A):

$$\begin{aligned} \mathbf{A} &= \text{Demand-Var1} / \text{Demand-Var2} \\ \text{Demand-Var1} &= \text{just computed} \\ \text{Demand-Var2} &= \text{just computed} \end{aligned}$$

Compute new Forecast Demand:

$$\begin{aligned} \mathbf{F/D_{new}} &= [(1 - A) \times \mathbf{F/D}] + (A \times \mathbf{CURR-DMD}) \\ \mathbf{A} &= \text{Alpha factor just computed} \\ \mathbf{F/D} &= \text{Forecast Demand from previous month, from MRP} \\ &\quad \text{Parameters for the applicable Forecast Method} \\ \mathbf{CURR-DMD} &= \text{Actual demand for month just completed, from Demand} \\ &\quad \text{History} \end{aligned}$$

5.5.3D OTHER INFORMATION:

Values of variables (Demand-Var1, - Var2) will be stored on MRP Parameters File for use in following month's computations.

5.5.4 "N" MONTH MOVING AVERAGE

5.5.4A CODE: 03

5.5.4B DESCRIPTION:

The value for "Number of Months" to be used for "N" will be defined by the system/user and will be stored on the MRP Parameters record for the applicable NSN and Forecast Method. The default value (on the System Parameter record) will be 12 periods, and the sum of the demand will be divided by 12. When the demand is spread across the MRP Data (Table), Leading Indicators may also be used.

5.5.4C FORMULA:

Add up the appropriate number of months of normalized demand (SUM-OF-DEMAND), based on the value of NBR-OF-MONTHS in the Forecast Method data on the MRP Parameters record. Separate totals are done for Rotable demand on E&R items.

Expendable	=	Normal + Non-normal
E&R	=	Non-normal and Rotable (separately)

Add up the actual number of months (SUM - OF - MONTHS).

This step handles the situation where, for example, the process plans to use a 12-months' average but the item has only been in the system for two months. The SUM-OF-MONTHS used to divide the total demand would then be "2," rather than the full 12.

Compute new Forecast Demand:

$$F/D_{\text{new}} = (\text{SUM - OF - DEMAND}) / (\text{SUM - OF - MONTHS})$$

SUM-OF-DEMAND = just computed

SUM-OF-MONTHS = just computed

5.5.4D OTHER INFORMATION:

None

5.5.5 DOUBLE EXPONENTIAL SMOOTHING

5.5.5A CODE: 04

5.5.5B DESCRIPTION:

This Forecast Method provides a smoothed average of demand with a trend. It cannot use Leading Indicators since this would double count increasing/decreasing demand.

5.5.5C FORMULA:

Compute Demand-Variable-1:

$$\text{Demand-Var1}_{\text{new}} = [(1 - A) \times \text{Demand-Var1}] + (A \times \text{CURR-DMD})$$

A = Alpha factor, from MRP Parameters

CURR-DMD = Actual demand for month just completed, from Demand History

Demand-Var1 = Previous month's value, from MRP Parameters for the applicable Forecast Method

Compute Demand-Variable-2:

$$\text{Demand-Var2}_{\text{new}} = [(1 - A) \times \text{Demand-Var2}] + (A \times \text{Demand-Var1})$$

A = Alpha factor, from MRP Parameters

Demand-Var1 = Just computed

Demand-Var2 = Previous month's value, from MRP Parameters for the applicable Forecast Method.

Compute Demand-Level:

$$\text{Demand-Level} = (2 \times \text{Demand-Var1}) - \text{Demand-Var2}$$

Demand-Var1 = Just computed

Demand-Var2 = Just computed

Compute Trend:

Trend = (Demand-Var1 / Demand-Var2) x (A x [1 - A])

A = Alpha factor, from MRP Parameters

Demand-Var1 = just computed

Demand-Var2 = just computed

Compute new Forecast Demand:

F/D_{new} = Demand-Level + Trend

Demand-Level = Just computed

Trend = Just computed

5.5.5.D OTHER INFORMATION:

None

5.5.6 LINEAR REGRESSION

5.5.6A CODE: 05

5.5.6B DESCRIPTION:

This Forecast Method does a simple "least error fit" of 12 periods of history to develop a forecast with a future trend. Items using this Forecast Method should have a demand of 5 per month or more. This method cannot use Leading Indicators since this would double count increasing/decreasing demand.

5.5.6C FORMULA:

Add up normalized demand (SUM - OF - DEMAND) for up to 12 months.

$$\begin{aligned}\text{Expendable} &= \text{Normal} + \text{Non-normal} \\ \text{E\&R} &= \text{Non-normal and Rotable (separately)}\end{aligned}$$

Add up the actual number of months (SUM - OF - MONTHS).

Compute Mean-Demand:

$$\text{MEAN-DEMAND} = \text{SUM - OF - DEMAND} / 12$$

Compute Mean-Month:

$$\text{MEAN-MONTH} = \text{SUM - OF - MONTHS} / 12$$

Determine variable values:

- Compute "X":

NOTE : The process loops through this computation for 12 months.

$$X_{\text{new}} = X + ([\text{Month-number} - \text{MEAN - MONTH}] \times [\text{NORMALIZED - DEMAND - HIST - MEAN - DEMAND}])$$

$$X = \text{Variable value - first time through the computation, will be zero; in subsequent computations, will be value determined in previous computation}$$

Month-number = Number of the month being computed, from 1 to a maximum of 12

MEAN-MONTH = Just computed

NORMALIZED-DEMAND-HIST = Normalized value for past demand (up to 12 separate values)

MEAN-DEMAND = Just computed

- Compute "Y":

NOTE : The process loops through this computation for up to 12 months.

$$Y_{\text{new}} = Y + (\text{Month-number} - \text{MEAN} - \text{MONTH})^2$$

Month-number = Number of the month being computed, from 1 to a maximum of 12

MEAN-MONTH = Just computed

- Compute "B":

$$B = X / Y$$

X = Just computed

Y = Just computed

- Compute "A":

$$\mathbf{A} = \text{MEAN-DMD} - (\mathbf{B} \times \text{MEAN-MONTH})$$

$$\mathbf{B} = \text{Just computed}$$

$$\text{MEAN-DMD} = \text{Just computed}$$

$$\text{MEAN-MONTH} = \text{Just computed}$$

- Compute DEMAND-VAR1:

$$\mathbf{DEMAND-VAR1} = \mathbf{A} + (\mathbf{B} \times 0.12) \quad [\text{Demand Level}]$$

$$\mathbf{A} = \text{Just computed}$$

$$\mathbf{B} = \text{Just computed}$$

- Determine DEMAND-VAR2:

$$\mathbf{DEMAND-VAR2} = \mathbf{B} \quad [\text{Trend}]$$

$$\mathbf{B} = \text{Just computed}$$

- Compute new Forecast Demand:

$$\mathbf{F/D_{new}} = \text{DEMAND-VAR1} + \text{DEMAND-VAR2}$$

$$\text{DEMAND-VAR1} = \text{Just computed}$$

$$\text{DEMAND-VAR2} = \text{Just computed}$$

5.5.6D OTHER INFORMATION:

None

5.5.7 WEIGHTED AVERAGE

5.5.7A CODE: 06

5.5.7B DESCRIPTION :

This Forecast Method computes a weighted average for a prior specified number of periods, with the average demand for each period being assigned its own weight. The specified number of periods is indicated by the NBR-OF-MONTHS element for this method on the MRP Parameters record. This method cannot use Leading Indicators.

5.5.7C FORMULA:

Add up the appropriate number of months of normalized demand (SUM - OF - DEMAND), based on the value of NBR-OF-MONTHS in the MRP Parameters record for the particular Forecast Method.

Expendable = Normal + Non-normal

E&R = Non-normal and Rotable (separately)

Compute variable "X":

$X = (\text{SUM - OF - DEMAND} / \text{NBR - OF - MONTHS}) \times A$

A = Alpha factor for this Forecast Method, from MRP Parameters record - weight given to most recent Demand History

SUM-OF-DEMAND = Just computed

NBR-OF-MONTHS = Value for this Forecast Method, from MRP
Parameters record

Again "sum up" the demand by adding up the normalized demand values (SUM -OF - DEMAND), beginning with the first month past those months used previously and ending with month 12.

Expendable = Normal + Non-normal

E&R = Non-normal and Rotable (separately)

Compute variable "Y":

$Y = (\text{SUM - OF - DEMAND} / [12 - \text{NBR - OF - MONTHS}]) \times [1 - A]$

A = Alpha factor for this Forecast Method, from MRP
Parameters record - weight given to most recent
Demand History

("1 - A" results in the weight given to the older Demand History)

SUM - OF - DEMAND = Just re-computed

NBR - OF - MONTHS = Value for this Forecast Method, from MRP
Parameters record

Compute new Forecast Demand:

$F/D_{\text{new}} = X + Y$

X = Just computed

Y = Just computed

5.5.7D OTHER INFORMATION:

None

5.5.8 FORECAST "1"

5.5.8A CODE: 07

5.5.8B DESCRIPTION:

This Forecast Method is used on items where only one asset is required. In this case, the Forecast Demand is not a "monthly" value, but represents the total future demand of the item.

5.5.8C FORMULA:

$F/D_{\text{new}} = 1$

5.5.8D OTHER INFORMATION:

None

5.5.9 FAILURE RATE

5.5.9A CODE: 08

5.5.9B DESCRIPTION:

This Forecast Method utilizes expected failures per machine month related to projected Equipment Population.

5.5.9C FORMULA:

-- TO BE DETERMINED --

5.5.9D OTHER INFORMATION:

This formula is unavailable at this time. A separate process must be developed to determine and update the value of "DEMAND - VAR1" when this Forecast Method is specified.

In addition, there is no supporting Equipment Population information, which will also be updated by a process scheduled for future development.

6.0 BUDGET REPORTING (INTERNAL - BATCH)

[RESERVED]

APPENDIX A

GLOSSARY

LIS - MATERIAL REQUIREMENTS PLANNING (MRP) SYSTEM REQUIREMENTS, FORECAST DEMAND, AND BUDGET USER GUIDE

ADDITIONAL DEMAND

Known future demand that is not reflected by Demand History. That future demand will normally be an increase, but it may also be a decrease. The most common usage expected is for special projects or overhauls. Information is maintained on the Additional Demand File and, where applicable, is considered in projected replenishment actions.

FORECAST PARAMETERS

Control values assigned to a particular NSN that identify applicable Forecast Methods that apply (Executive plus 2 alternates) and counter values that define when "out of tolerance" conditions will be reported to an Inventory Manager for action.

NORMAL PROCESS

In general, this means: Process the Requirements record in accordance with the type of record and the Procurement or Repair Source Code.

Usually, the process will create a record either for the Automated Procurement System or FEDSTRIP/MILSTRIP. Those "Normal Processes" will include the following:

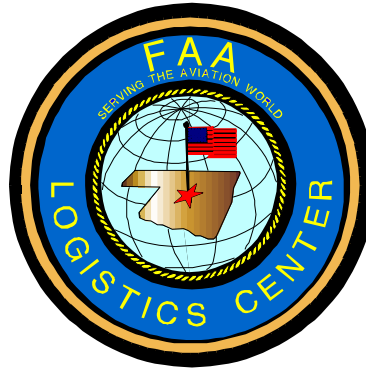
EXPENDABLE - COMMERCIAL	Automated Procurement
EXPENDABLE - FED/MIL	FEDSTRIP/MILSTRIP
EXPENDABLE - SHOP FAB	** Message
EXPENDABLE - PRINTING (FORMS/INSTRUCTION BOOKS)	** Message
E&R REPAIR - COMMERCIAL	Automated Procurement
E&R REPAIR - LOCAL SHOPS/AVN	** Message
E&R ACQUISITION	Automated Procurement/ FEDSTRIP/MILSTRIP
FED / MIL STOCK BUY STATUS (F/M)	FEDSTRIP/MILSTRIP ("re-process")
** Message:	NO AUTOMATED PROCESS AT THIS TIME

NUMBER OF IMPRESSIONS

Applicable to those inventory items that are printed -- forms and instruction books. Identifies the number of printing "operations" required for a single unit of issue.

SYSTEM PARAMETERS

Same as Forecast Parameters, but identifies the default values to be used to establish a Parameter record for a new NSN.



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